

DEPARTMENT OF PUBLIC WORKS

TOWN OF UXBRIDGE, MASSACHUSETTS

TOWN OF UXBRIDGE, MASSACHUSETTS

**ROADWAY & INTERSECTION IMPROVEMENTS PROJECT
DOUGLAS STREET (ROUTE 16) AT
WORCESTER-PROVIDENCE TURNPIKE (ROUTE 146)
CONTRACT 2022-14**

February 16, 2022

Prepared By:

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

BID SET # _____

TABLE OF CONTENTS

DOCUMENT 0100	- INVITATION TO BID
DOCUMENT 0200	- GENERAL INFORMATION
DOCUMENT 0300	- CONSTRUCTION AGREEMENT
DOCUMENT 0400	- FORM FOR BID
DOCUMENT 0500	- SPECIAL PROVISIONS
DOCUMENT 0600	- PREVAILING WAGE RATES
DOCUMENT 0700	- MASSDOT HIGHWAY ACCESS PERMIT
DOCUMENT 0800	- ORDER OF CONDITIONS

THE TOWN OF UXBRIDGE, MASSACHUSETTS

INVITES PROPOSALS

**ROADWAY & INTERSECTION IMPROVEMENTS PROJECT
DOUGLAS STREET (ROUTE 16) AT
WORCESTER-PROVIDENCE TURNPIKE (ROUTE 146)
CONTRACT 2022-14**

The Town of Uxbridge, Massachusetts, invites bids for roadway and traffic improvements along Douglas Street (Route 16), including the Worcester-Providence Turnpike (Route 146) interchanges, with said work to include excavation, box widening, full-depth construction, drainage system modifications; sidewalk, pedestrian curb ramp and driveway construction, vertical granite curb and sloped granite edging installation; traffic sign and pavement marking installation, street lighting installation, traffic control management during construction, and other improvements in the Town of Uxbridge, Massachusetts, until **12:00 PM, Local Time, Wednesday, March 16, 2022.**

Sealed bids marked "**ROADWAY & INTERSECTION IMPROVEMENTS PROJECT DOUGLAS STREET (ROUTE 16) AT WORCESTER-PROVIDENCE TURNPIKE (ROUTE 146), CONTRACT 2022-14**" must be delivered to the Office of the Town Manager, 21 South Main Street, Uxbridge, Massachusetts 01569 no later than **12:00 PM, Local Time, Wednesday, March 16, 2022.**

Plans and specifications that include the required bid forms may be viewed as PDF documents and ordered for printing at www.accentblueprints.com. A copy fee will be charged for printed copies. The documents may also be picked up at Accent Printing, 99 Chelmsford Rd, N. Billerica, MA 01862 (978-362-8038). Hard copies of the documents can be shipped on order upon payment of handling and mailing fee.

Addenda, if issued, will be posted to the Accent Printing website and shall be accompanied by e-mail notification to every individual or firm on record as having received the Bid Documents. It shall be the sole responsibility of the Contractor to ascertain the existence of any and all addenda.

Approval from MassDOT regarding prequalification is required in order to bid on this project. The cost of this project is estimated to be \$4,200,000.

The bid must be completed and signed as directed, and accompanied by a five percent (5%) bid bond in accordance with Chapter 30, Section 39M or a certified treasurer's or cashier's check issued by a responsible bank. The Town will retain these funds if the bidder is selected and fails to sign the contract within twenty-one (21) days of the award of a contract.

State prevailing wage rates apply to this project and are included in the contract documents. A payment bond and a performance bond with surety approved by the Commonwealth of Massachusetts in the amount of the full contract value are a requirement of the contract.

Bids will be publicly opened and read at Town Hall, 21 South Main Street, Uxbridge, MA in Lower Town Hall meeting room at 12:00 PM, Local Time, on Wednesday, March 16, 2022. The Town reserves the right to reject any or all bids or to accept the bid deemed to be in the best interest of the Town.

All bids submitted will be considered valid and binding for thirty days from the opening of bids.

All questions concerning the contract must be submitted in writing or via email (dmills@mdmtrans.com) to the Project's Design Engineer, MDM Transportation Consultants, Inc., 28 Lord Road, Suite 280, Marlborough, Massachusetts 01752 before 4:00 PM, Local Time, on Wednesday, March 9, 2022.

Benn Sherman
Director of Public Works

DOCUMENT 0200
GENERAL INFORMATION

GENERAL DEFINITIONS

- A. These Instructions to Bidders (“Instructions”) are intended to assist Bidders in the preparation of their bids, to call attention to various legal requirements and to set forth certain conditions upon which bids are submitted and received.
- B. The award of the Contract is governed by Section 39M of Chapter 30 of the Massachusetts General Laws. Certain provisions of the foregoing statute and of other applicable statutes are summarized or referred to in these Instructions. Whenever these Instructions or any other Contract Documents set forth or summarize applicable statutory provisions, whether or not the statutes have been specifically referred to, such summaries are for convenience only, do not purport to be complete or correct as summaries in any material particular, and shall in no respect supersede, expand or limit rights or duties of the Town or Bidders in matters governed by statute.
- C. The following definitions shall apply in these Instructions and in the other Contract Documents:
 1. The term “bidding documents” shall include the Invitation to Bid, these Instructions, the bid forms, bond forms, contract forms and other Contract Documents bound herewith, the Drawings, the Specifications, and all Addenda issued prior to receipt of bids.
 2. The term “Contract Documents” shall mean the contract entered into between the Town and the successful general Bidder, including all documents enumerated as Contract Documents in the Agreement between Owner and Contractor, and all Modifications issued after execution of the Contract.
 3. The terms “Addenda” and “Addendum” shall mean written documents and/or drawings issued by the Town prior to execution of the Contract which supplement, modify, correct, explain or interpret the bidding documents.
 4. All definitions set forth in the Conditions of the Contract or the other Contract Documents as therein defined are applicable to these Instructions and to the other bidding documents.

AVAILABILITY OF BIDDING DOCUMENTS

- A. Plans and specifications that include the required bid forms may be viewed as PDF documents and ordered for printing at www.accentblueprints.com. A copy fee will be charged for printed copies. The documents may also be picked up at Accent Printing, 99 Chelmsford Rd, N. Billerica, MA 01862 (978-362-8038). Hard copies of the documents can be shipped on order upon payment of a handling and mailing fee.

Addenda, if issued, will be posted to the Accent Printing website and shall be accompanied by e-mail notification to every individual or firm on record as having received the Bid Documents. It shall be the sole responsibility of the Contractor to ascertain the existence of any and all addenda.

- B. Bidders shall use complete sets of bidding documents in preparing bids; the Town shall not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of bidding documents.

- C. The Town in making copies of the bidding documents available does so only for the purpose of obtaining bids on the work of this contract and does not expressly or impliedly confer a license or permission of any kind to any person for any other use thereof.

EXAMINATION OF SITE AND BIDDING DOCUMENTS

- A. Before submitting a bid, each Bidder must: (a) thoroughly examine the Contract Documents and other bidding documents, (b) visit the site to fully examine and acquaint itself with local conditions that may in any manner affect cost, progress or performance of the Work, (c) familiarize itself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work, and (d) carefully correlate their observations with the requirements of the Contract Documents. Failure of a Bidder to visit the site and acquaint itself with the bidding documents or to attend the pre-bid conference, if any, shall in no way relieve the Bidder from any obligation with respect to their bid.
- B. Before submitting a bid, each Bidder may, at their own expense, make such additional investigations and tests as the Bidder may deem necessary to prepare their bid. On request, the Town shall provide each Bidder access to the site to conduct such investigations and tests.
- C. The property upon which the work is to be performed, rights-of-way for access thereto and other property designated for use by the contractor in performing the work are identified in the Contract Documents.
- D. Each Bidder shall promptly notify the Town Engineer of any ambiguity, inconsistency or error it may discover upon examination of the bidding documents, the site or other local conditions. The submission of a bid will constitute a representation by the Bidder that it has complied with every requirement of this Section 3 and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the work of this contract.
- E. The Town shall be responsible for payment of any building permit fees and related municipal inspection fees.

ADDENDA AND INTERPRETATION OF BIDDING DOCUMENTS

- A. All questions and requests for clarification or interpretation of the meaning of the bidding documents shall be in writing, addressed to the Town Engineer at the address stated in the Invitation to Bid, and to be given consideration must be received at least seven (7) days prior to the date fixed for opening of bids.
- B. Clarifications or interpretations and any supplemental instructions or forms, if issued, will be issued in the form of written Addenda not later than two business days before the date fixed for opening of bids. Addenda will be sent by U.S. mail or by express delivery service or other method determined by the Town, to all parties who, according to the Town Engineer's records, have obtained or requested bidding documents and have furnished an address for such purposes. Copies of Addenda will be made available for inspection at all locations where bidding documents are on file for that purpose. Each Bidder shall be responsible for determining that they have received all Addenda issued and shall acknowledge receipt of all Addenda on their bid form, and failure of any Bidder to receive any Addendum shall not relieve such Bidder from any obligation under their bid as submitted. All Addenda so issued shall become part of the bidding documents.

C. Oral clarifications or interpretations will be of no legal effect. The Town shall not be responsible for, and no Bidder may rely upon or use as the basis of a claim against the Town or the Architect, any information, explanation or interpretation of the bidding documents rendered in any fashion except as herein provided.

PREQUALIFICATION BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

A. To take out bids, the Bidder must be prequalified by the Massachusetts Department of Transportation (“MassDOT”) Highway Division in the required category of work and proper capacity rating.

For further information on obtaining on MassDOT prequalification, Bidders may contact:

**Prequalification Department
MassDOT - Highway Division
10 Park Plaza, Room 3620
Boston, Massachusetts 02116
(857) 368-8660**

B. Should the low Bidder be determined not to be eligible, the Town shall review the next low Bidder's eligibility, in accordance with these Instructions and applicable law until a Bidder is determined to be eligible for contract award.

C. The Contract shall not be awarded to any Bidder whose background information, when investigated and verified by the Town, raises significant question as to their ability to successfully complete the project in question due to past or current problems with their skill, ability and integrity.

WAGE RATES

Prevailing rates of wages for work performed under this Contract will be as determined by the Division of Occupational Safety of the Massachusetts Department of Labor and Work Force Development in accordance with the provisions of Sections 26 to 27H, inclusive, of Chapter 149 of the Massachusetts General Laws. Attention is called to serious penalties established under law for violation of these provisions. The schedule of wage rate determinations applicable to this Contract is included in the bidding documents.

SALES TAX

Section 6(f) of Chapter 64H of the Massachusetts General Laws exempts from Massachusetts sales tax building materials and supplies to be used in the Project, and Bidders shall not include in their bids any amount therefore. The words “building materials and supplies” shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge, or other such public work, as well as such materials and supplies physically incorporated therein. Said words shall also include rental charges for construction vehicles, equipment and machinery rented specifically for use on the site of the project or while being used exclusively for the transportation of materials for the project. The number of the certificate granted by the Commissioner of Revenue for use in obtaining the exemption will be given to the successful general Bidder.

PREPARATION AND SUBMISSION OF BIDS

- A. Every bid must be submitted on the prescribed Form for General Bid, copies of which are included with the bidding documents and available at Access Blueprints at the address stated in the Invitation to Bid. All blank spaces in the bid forms shall be filled in, in ink or typewritten, in words or figures. The bid prices for each item on the bid forms shall be stated in both words and figures. Where itemized lump sum or unit prices are called for, all such prices shall be provided by the Bidder. Where unit prices are required on the bid forms, in the event of a discrepancy between specified unit prices and totals based on such unit prices, the unit prices specified shall govern. In the event of a discrepancy between prices written in words and prices written in figures, the written words shall govern. In the event of a discrepancy between the indicated sum of any column of figures and the correct sum thereof, the correct sum shall govern. The bid shall state the legal name of the Bidder and shall be signed in ink by a person or persons legally authorized to bind the Bidder to a contract. The name and title of the person or persons signing the bid shall be typed or printed below the signature(s).

- B. One copy of each bid shall be submitted to the Town at the address stated below.

Steven Sette
Town Manager/Chief Procurement Officer
21 South Main Street
Uxbridge, Massachusetts 01569

- C. Each Form for Bid, accompanied by the required bid deposit, shall be enclosed in a sealed opaque envelope with the following plainly marked on the outside:

ROADWAY & INTERSECTION IMPROVEMENTS PROJECT
DOUGLAS STREET (RT. 16) AT WORCESTER-PROVIDENCE TURNPIKE (RT. 146)
CONTRACT 2022-14

If the bid is mailed, the general Bidder shall enclose their sealed bid and bid deposit in an outer envelope addressed as follows:

FROM: (Bidder's name and business address)
TO: Steven Sette
Town Manager/Chief Procurement Officer
21 South Main Street
Uxbridge, Massachusetts 01569

RECEIPT OF BIDS

- A. All Bidders are cautioned to allow ample time for transmittal of bids. Bidders are solely responsible for delivery to and receipt by the Town of bids. Bids received after the specified time will not be accepted or recognized. The time of receipt will determine the acceptability of mailed bids, regardless of postmark.

- B. Any bid may be withdrawn by the Bidder or their duly authorized representative by written notice received by the Town at the address for receipt of bids specified in the Invitation to Bid prior to the time scheduled for the opening of such bids or authorized postponement thereof. No bid may be withdrawn for thirty business days after the opening of general bids. A bid may be amended or modified only by withdrawing the bid and resubmitting another bid prior to the time for opening bids.
- C. No telephonic, telegraphic or e-mailed bid, change in bid or withdrawal of bid will be received or recognized.
- D. Bids will be opened and read publicly at the place and time stated in the Invitation to Bid or the authorized postponement thereof. Bidders or their authorized representatives are invited to be present.

BID DEPOSIT

- A. Each bid must be accompanied by a bid deposit in the form of a bid bond, or cash, or a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company, payable to the Town of Uxbridge. A bid bond shall be (a) in form satisfactory to the Town substantially conforming to the sample contained in the Contract Documents, (b) with a surety company qualified to do business in the Commonwealth of Massachusetts and satisfactory to the Town, and (c) conditioned upon the faithful performance by the principal of the agreements contained in the bid. The bid deposit shall be in the amount of five percent (5%) of the value of the bid. The bid deposit shall be sealed in a separate envelope from the bid and then attached to the envelope containing the bid.
- B. All bid deposits of general Bidders, except those of the three (3) lowest responsible and eligible general Bidders, shall be returned within five business days after the opening of the bids. The bid deposits of the three (3) lowest responsible and eligible general Bidders shall be returned upon the execution and delivery of the contract; except that, if any general Bidder to whom the contract is awarded fails to perform their agreement to execute the contract and furnish a performance bond and also a labor and materials payment bond as stated in their bid in accordance with Section 39M(c) of Chapter 30, the Town may determine that such Bidder has abandoned the proposed contract, and thereupon the proposal made by such Bidder in their bid and the acceptance thereof by the Town shall be null and void and the bid deposit of such Bidder shall become and be the property of the Town as liquidated damages for such failure and to indemnify the Town for any loss, cost or damage sustained by the Town as a result of such failure of the general Bidder to execute the contract and furnish the required bonds as aforesaid; provided that the amount of the bid deposit which becomes the property of the Town shall not, in any event, exceed the difference between the bid price of such general Bidder and the bid price of the next lowest responsible and eligible general Bidder; and provided further that, in case of death, disability, bona fide clerical or mechanical error of a substantial nature, or other similar unforeseen circumstances affecting the general Bidder, their bid deposit shall be returned to it.
- C. In addition to the provisions for the return of bid deposits in the foregoing Paragraph B, upon receipt of a bid bond in an amount not less than the amount of the required bid deposit, the Town shall return any bid deposit of a Bidder forthwith after public opening of bids. The bid bond shall be in an amount and in the form provided in Paragraph A.

REJECTION OF BIDS

- A. The Town reserves the right to reject any or all general bids if it be in the public interest to do so. Every general bid which is not accompanied by the required bid deposit, or which otherwise does not conform to statutory requirements, or which is on a form not completely filled in, or which is incomplete, conditional or obscure, or which contains any addition not called for, shall be considered invalid and the Town shall reject any such bid.
- B. In addition, the Town may consider informal and may reject any bid which is not prepared and submitted in accordance with all requirements of the bidding documents, or which contains erasures, alterations, additions, errors or irregularities of any kind, or which contains proposed prices for any class or item of work which are, in the judgment of the Town, substantially less or more than the actual cost to complete the work; provided, however, that the Town reserves the right to waive any and all informalities or non-statutory requirements.
- C. Subject to the foregoing, if the bid forms, specifications, or any other bid documents require submission of special information or data to accompany bids, or sub-bids for any trade, if applicable, and any Bidder neglects to furnish such information or data with their bid, the Town may reject the bid of such Bidder as incomplete; provided, however, that the Town reserves the right to deem any such omission which is not an omission of substance as an informality for which such bid will not be rejected, and to subsequently receive such information or data prior to award of the contract.
- D. See also Section 5 as to the Town's right to reject the bid of any Bidder who is not qualified, competent and responsible.

AWARD OF CONTRACT

- A. The contract will be awarded to the lowest responsible and eligible Bidder complying with the conditions and requirements provided in these Instructions, the bid forms and the other bidding documents. A "responsible and eligible" Bidder is a Bidder demonstrably possessing the skill, ability and integrity necessary to faithfully perform the work called for by the contract, based upon a determination of competent workmanship and financial soundness in accordance with the provisions of Section 39M(c) of Massachusetts General Laws Chapter 30 and which meets all other requirements of Section 39M.
- B. Award of the contract will be made within thirty business days after (i) the opening of the bids or (ii) the receipt by the Town of any approvals necessary from federal agencies in connection with the project, whichever is later.
- C. The successful Bidder will be notified in writing, by mail or otherwise, that their bid has been accepted and that it has been awarded the contract. The successful Bidder shall execute the contract and furnish the required bonds, at the offices of the Town if requested, within ten business days after presentation of the contract to the Bidder or notice to the Bidder that the contract is ready for execution.

D. If the Bidder selected as the general contractor fails to perform their agreement to execute the contract in accordance with the terms of their bid and furnish a performance bond and also a labor and materials payment bond as stated in their bid, the award will be made to the next lowest responsible and eligible general Bidder, subject to the provisions of Section 39M of said Chapter 30. The thirty-business-day time limit shall not be applicable to a second or subsequent award made after the expiration of the time limit with the consent of said next lowest responsible and eligible general Bidder and made because the original award made within the time limit was invalid, or because the general Bidder failed to execute the contract or to provide a performance bond and a labor and materials payment bond.

CERTIFICATES AND DOCUMENTS TO BE FURNISHED UPON EXECUTION OF CONTRACT

- A. If the amount or the estimated amount of this contract is greater than \$100,000, then, pursuant to Section 39R of Chapter 30 of the Massachusetts General Laws, the Contract Documents require the general contractor to make and keep books, records and accounts pertaining to the contractor's financial affairs and to file with DCAM and the Town the statements and certificates described below in Paragraphs B and C. Records and statements required under Section 39R are not public records and are not open to public inspection, but shall be made available as provided in said Section 39R. Words used in Paragraphs B and C below shall have the meanings assigned to them in said Section 39R.
- B. Prior to the execution of the contract the general contractor shall file with the Town:
 1. A statement of management as to whether the system of internal accounting controls of the contractor and their subsidiaries reasonably assures that:
 - a. transactions are executed in accordance with management's general and specific authorization;
 - b. transactions are recorded as necessary
 - (i) to permit preparation of financial statements in conformity with generally accepted accounting principles, and
 - (ii) to maintain accountability for assets;
 - c. access to assets is permitted only in accordance with management's general or specific authorization; and
 - d. the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.
 2. A statement prepared and signed by an independent certified public accountant, stating that they have examined the statement of management on internal accounting controls, and expressing an opinion as to:
 - a. whether the representations of management are consistent with the result of management's evaluation of the system of internal accounting controls; and

- b. whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.
- C. Prior to execution of the contract, and annually during the term of the contract, the general contractor shall file with DCAM a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. All statements shall be accompanied by an accountant's report.
- D. Pursuant to Section 49A of Chapter 62C of the Massachusetts General Laws the contractor must certify that they have complied with all laws of the Commonwealth of Massachusetts relating to taxes. This certification is contained in the Agreement to be executed by the general contractor.
- E. Prior to commencement of work, the general contractor must furnish to the Town certificates evidencing required insurance coverage in accordance with the provisions of the insurance requirements contained in the Conditions of the Contract. The Town shall have no obligation to execute the Contract and may award the Contract to the next lowest eligible and responsible Bidder if such insurance certificates have not been provided to the Town within five (5) business days after presentation of the Contract to the general contractor for execution.
- F. Evidence of compliance with laws of the Commonwealth relating to corporations, and evidence of corporate authority with respect to execution of the contract documents on behalf of the general contractor, in form acceptable to the Town, must be furnished by the general contractor to the Town at the time of execution of the contract.
- G. A performance bond and a labor and materials payment bond, each in the amount of the contract sum, must be furnished by the general contractor as stated in the bid form. Such bonds must be on the forms contained in the bidding documents and must be executed and delivered to the Town at the time of execution of the contract. Each attorney-in-fact who executes such a bond on behalf of the surety must affix thereto a certified and current copy of their power of attorney.

DOCUMENT 0300
CONSTRUCTION AGREEMENT
BETWEEN THE TOWN OF UXBRIDGE

AND _____

Dated _____, 2022

This Agreement between the Town of Uxbridge (the "Owner" or "Town") and _____
_____ (the "Contractor") is entered into this _____ day of 2022. Whenever used
in the Contract Documents, the following terms shall have the meanings indicated in Article 1 below.

ARTICLE 1
DEFINITIONS

Advertisement	The notice, as required by law inviting bids (proposals) for Work to be performed or materials to be furnished.
Alteration	A change or substitution in the form, character, or detail of the Work done or to be done within the original scope of the Contract at unit prices stated in the Contract, which alteration makes a change in the item originally contracted for or a substitution from that item to a similar item at the same unit price.
Award	The acceptance by the Town of a bid (proposal) contemplating the execution and delivery of a contract.
Bid	See Proposal.
Informal as to form	A bid which contains a minor deficiency or deviation from what is requested by the Town.
Informal as to substance	A bid which fails to comply with the requirements of the public bidding law.
Bidder	Any individual, firm, partnership, corporation or joint venture submitting a Proposal for the Work contemplated, acting directly or through a duly authorized representative.
Bridge	The term 'bridge' shall apply to any structure whether single or multiple span construction that spans a body of water, depression, highway or railway, and affords passage for pedestrians, or vehicles of all kinds. Or any combination thereof having a total length of 25 feet or more.

Length	In general, the “length” of a bridge is that distance measured horizontally along the centerline of roadway between extreme centerlines of bridge shoes or bearings, or when shoes or bearings are not used the distance between vertical faces of abutments, or spring lines of arches, or extreme ends of openings for multiple reinforced concrete boxes.
Roadway Width	The clear width measured at right angles to the longitudinal centerline of the bridge between the bottom of curbs or guard timbers or in the case of multiple height or curbs, between the bottoms of the lower risers.
Contract Documents	The Contract Documents consist of this Agreement, the Notice to Contractor, the Proposal, the Drawings and Specifications; any Addenda and all other documents identified by the Town as constituting part of the Contract Documents.
Contract Item (Pay Item)	A specifically described unit of Work for which a price is provided in the contract.
Contract Time	The number of days allowed for completion of the Contract. If a calendar date of completion is shown in the Proposal in lieu of the number of days, the Contract shall be completed by that date. If a completion date is not established, the Contract Time for this Contract shall be 540 days.
Change Order	As defined in Section 2.02 herein.
Culvert	A structure not classified as a bridge which provides an opening under the roadway.
Day	Every day shown on the calendar, Sundays and Holidays included.
Differ Substantially or materially	When the character of the Work encountered in exposing subsurface or latent physical conditions, while the Work is in progress, is found to be essentially different in nature from that shown on the plans or indicated on the contract documents or from that ordinarily encountered and generally recognized as inherent in Work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the Work or a change in the construction methods required for the performance of the Work, resulting in any increase or decrease in the cost of the Work.
Engineer	The Town Engineer acting directly or through an authorized representative, such representative acting within the scope of the particular duties entrusted to them.
Latent Physical Conditions	Actual physical conditions at the site that were indiscernible: Hidden; not visible or apparent, and which as a basis for a request for an equitable adjustment, differ substantially and materially from those shown on the plans or indicated in the contract documents.

Notice to Proceed	A written communication issued by the Town to the Contractor authorizing them to proceed with the Work and establishing the date of commencement of the Work.
Pavement Structure	A combination of sub-base, base course and surface course placed on a subgrade to support the traffic load and distribute it to the subgrade.
Plans	Approved contract drawings, Town standards, working drawings, supplemental drawings, detail sheets or exact reproductions hereof, which show the location character. Dimensions and details of the Work to be done.
Project	The construction to be performed.
Proposal	The written offer of the Bidder, on the prescribed form, to perform the Work and to furnish the labor and materials at the prices quoted.
Right-of-way	That area which has been laid out or acquired for highway purposes.
Sieves	All sieves referred to in the Specifications shall be standard woven wire cloth sieves and shall conform to the requirements of AASHTO Designation M92.
Special Provisions	The special agreements and provisions prepared for proposed Work on a specific project. These special provisions shall be included within the general term specifications and shall be made a part of the Contract with the express purpose that they shall prevail over all other specifications.
Specifications	The directions, provisions and requirements contained herein, designated as Standard Specifications. Together with all written agreements made or to be made pertaining to the method and manner of performing the Work, or the quantities and qualities of materials to be furnished under the Contract.
Subcontractor	An individual, firm, partnership or joint venture to whom the Contractor with prior written approval of the Engineer sublets any part of the Contract.
Subgrade	The plane at the bottom of the sub-base.
Substantial Completion	Shall mean either that the Work required by the Contract has been completed except for Work having a contract price of less than one percent of the then adjusted total Contract Sum, or substantially all of the Work has been completed and opened to public use except for minor incomplete or unsatisfactory Work items that do not materially impair the usefulness of the Work required by the Contract. Substantial Completion shall be conclusively determined by the Engineer after inspection of the Work.

Supplemental Specifications	Additions and revisions to the standard specifications that are issued prior to the opening to bids.
Work	Work shall mean the furnishing of all labor, material, equipment and other incidentals necessary for the successful completion of the Project and the carrying out of all the duties and obligations imposed by the Contract. In the actual construction process, necessary shop plans, computations, ordering of materials and equipment, fabrication of material, parts and components, etc.

ARTICLE 2 **SCOPE OF WORK**

2.01 Intent of the Contract

- 2.01.1.** The intent of the Contract is to prescribe the complete Work or improvement. The Contractor shall perform all the items of Work stipulated in the Proposal in accordance with the lines, grades, typical cross sections and dimensions shown on the plans or supplemental plans, standards, or modifications of them as required by change conditions in the field, and as authorized or directed. The Contractor shall do all clearing and grubbing; make all excavations and embankments; do all shaping and surfacing; construct all drainage structures, bridges and other appurtenant structures, as indicated in the Contract; remove all obstructions from within the lines of the improvement; and shall do such additional, extra and incidental Work as may be considered necessary to complete the Work in a substantial and acceptable manner and when it is so completed the Contractor shall leave the Work in a neat and finished condition.
- 2.01.2.** The Contractor shall do all the Work and furnish all the materials, tools and appliances, except as otherwise specified in the Contract, necessary or proper for performing and completing the Work required by the Contract, in the manner and within the time specified. The Contractor shall complete the entire Work to the satisfaction of the Engineer, and in accordance with the specifications and drawings for the Work at the prices agreed upon.
- 2.01.3.** All the Work, labor and materials to be done and furnished under the Contract shall be done and furnished pursuant to, and in conformity with the specifications and the drawings for the Work which said specifications and drawings shall form part of the Contract. Further, the Contractor shall follow the directions of the Engineer as given from time to time during the progress of the Work under the terms of the Contract.
- 2.01.4.** The Contract shall include grading outside the right-of-way together with the Work of loaming surfaces, constructing walks, driveways, drains, and other miscellaneous Work as shown on the plans and as directed.

2.02 Changes in the Work and the Contract Time

- 2.02.1.** The Contract Sum and the Contract Time may be changed only by Change Order. A Change Order signed by the Contractor indicates their agreement therewith, including the adjustment, if any, in the Contract Sum or the Contract Time.

The Owner may order Changes in the Work consisting of additions, deletions or other revisions, the Contract Sum and the Contract Time being adjusted accordingly, if necessary. All such Changes in the Work shall be authorized by Change Order and shall be performed under this Agreement.

With respect to Change Orders, the Contractor shall submit to the Owner an accurate written statement setting forth in detail the Contractor's best estimate of the increased or decreased cost as a result of such proposed Change Order. The Contractor shall state in such proposal any extension of time required for the completion of the Work if the Change Order is approved. No extensions of the Contract Time will be permitted on account of weather during the months of November, December, January, February or March. The Contractor shall promptly revise and resubmit such proposal if the Owner determines that the proposal is not in compliance with the requirements of this Section, or that it contains errors or ambiguities. Once it has been reviewed and approved, the Change Order shall be executed by the Owner and returned to Contractor for signature.

The amount by which the Contract Sum shall be adjusted as a result of a Change in the Work shall be determined in one or more of the following ways:

1. by unit prices stated in the Contract Documents or as otherwise agreed upon,
2. by actual cost determined after the Work covered by the Change Order is completed,
or
3. by such method as determined by the Engineer.

2.02.2. No claim for extension of the Contract Time shall be allowed because of seasonal or abnormal variations in temperature, humidity, or inclement weather, which conditions shall be wholly at the risk of the Contractor.

2.03 Changed Conditions

2.03.1. In accordance with Chapter 30, Section 39N of the General Laws, as amended, the following paragraph is included in its entirety:

2.03.2. If during the progress of the Work, the Contractor or the Town discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the Contractor or the Town may request an equitable adjustment in the contract price of the Contract applying to Work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a Contractor, or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the Work or a change in the cost of performance of the Work or a change in the construction methods required for the performance of the Work which results in an increase or decrease in the cost of the Work, the contracting authority shall make an equitable adjustment in the contract price and the Contract shall be modified in writing accordingly.

2.03.3. The filing, investigation and settlement of all claims made under said Chapter 30, Section 39N shall be as follows:

Upon request of the Owner or the Engineer, the Contractor shall without cost to the Owner submit to the Engineer, in such form as the Engineer may require, an accurate written estimate of the cost of any proposed extra Work or change. The estimate shall indicate the quantity and unit cost of each item of materials, and the number of hours of work and hourly rate for each class of labor, as well as the description and amounts of all other costs chargeable under the terms of this Subsection. Unit labor costs for the installation of each item of materials shall be shown if required by the Engineer. The Contractor shall promptly revise and resubmit such estimate if the Engineer determines that it is not in compliance with the requirements of this Section, or that it contains errors of fact or mathematical errors. If required by the Engineer, in order to establish the exact cost of new Work added or of previously required Work omitted, the Contractor shall obtain and furnish to the Engineer bona fide proposals from recognized suppliers for furnishing any material included in such Work. Such estimates shall be furnished promptly so as to occasion no delay in the Work and shall be furnished at the Contractor's expense. The Contractor shall state in the estimate any extension of time required for the completion of the Work if the change or extra work is ordered.

2.03.4. If an adjustment to the Contract Sum is warranted, the adjustment shall be as provided in Section 2.02, above.

2.04 Contractor's Warranties

2.04.1. The Contractor guarantees and warrants to the Owner and the Engineer that all materials and equipment furnished under the Contract Documents will be new and of recent manufacture unless otherwise expressly required or permitted by the Contract Documents, and that all Work shall be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective or as failing to conform to the Contract Documents.

2.04.2. It is specifically agreed that the Contractor's warranties of materials, equipment and labor under this Section and all other warranties, guarantees, responsibilities and liabilities of the Contractor under the Contract Documents or otherwise provided under law, shall apply to products and equipment, if any, furnished by the Owner as referred to in the Specifications and to the installation thereof by the Contractor or their Subcontractors under this Contract as fully as if such products and equipment had been purchased directly by the Contractor for incorporation in the Work.

2.04.3. The Contractor shall obtain and preserve for the benefit of the Owner manufacturer's warranties on materials, fixtures and equipment incorporated into the Work, and the Contractor shall prepare and execute a written guarantee and warranty applicable to all phases of the Work in accordance with the provisions of this Section and all other applicable provisions of the Contract Documents pertaining to warranties and guarantees, and shall also secure and pass through to the Owner written guarantees and warranties prepared in a similar manner from each Subcontractor engaged in the performance of the Work and, prior to Substantial Completion, shall deliver complete sets of all such guarantees and warranties to the Engineer for review.

2.04.4. The warranty and guarantee provisions of this Section shall be in addition to and not in limitation of any other warranties, guarantees or remedies allowed by law or the Contract Documents.

2.04.5. No additional charge shall be made by the Contractor or by any Subcontractor for attending meetings at the site to diagnose problems or to instruct the Owner's personnel in the proper operation or maintenance of the Work. The Contractor shall provide such service promptly upon notice from the Owner. In case of emergency, service shall be provided as necessary to avoid loss or damage or to maintain normal use of the premises. The Contractor shall furnish to the Engineer and to the Owner a list of names and telephone numbers, with a back-up name and telephone number, covering each area of potential emergency. The Contractor warrants that the Work and services to be performed under the Contract, and all Workmanship, materials and equipment performed, furnished, used or installed in the construction of the same, shall be of new and recent manufacture, free from defects and flaws, and in strict accordance with the Drawings, Specifications, and other Contract Documents. The Contractor further warrants that all manufactured equipment shall be of the highest quality and as specified and that the performance test requirements of the Contract shall be fulfilled. This warranty shall be for a period of one year from and after the date of final completion and acceptance of the Work as provided herein.

ARTICLE 3 **CONTROL OF WORK**

3.01 Authority of the Engineer

The Engineer shall decide all questions which may arise as to the interpretation of the plans and specifications, and the Engineer may alter, adjust and approve same when necessary; all questions which may arise as to the quality, quantity, value and acceptability of materials furnished or to be furnished and Work performed or to be performed; all questions which may arise as to the progress of the Work and need for and manner of correcting same, and also the need for and terms of delays and suspensions; all questions relating to the need for and terms of extra Work; all questions relating to the supervision, control and direction of Work on the site and the use thereof; all questions as to the acceptable fulfillment of the Contract on the part of the Contractor.

3.02 Plans and Detail Drawings

- 3.02.1.** Supplemental plans and detail drawings as required in the specifications and furnished by the Contractor or the Town shall upon approval, become part of the complete plans. Supplemental plans for temporary structures, steel sheeting, cofferdams, sign and traffic supports, etc., the original design for which is the responsibility of the Contractor, shall bear the seal of a Professional Engineer registered in Massachusetts.
- 3.02.2.** Such approval by the Engineer of supplemental plans or detail drawings, however, shall not operate to relieve the Contractor of any of their responsibility under the Contract nor for errors in dimensions, details or quantities or for nonconformance with details of the original approved design. Any Work done or materials ordered for the structures involved prior to the approval of supplemental plans and detail drawings shall be at the Contractor's own risk.
- 3.02.3.** When submitting detail drawings for approval, complete sets of prints, as directed, shall be furnished to the Engineer who will return one set either approved or with corrections marked thereon. Finally, the Contractor shall furnish the Engineer with complete sets of prints, as directed, of the corrected and approved detail drawings. No changes shall be made in the approved drawings without the written consent of the Engineer.
- 3.02.4.** The shop drawings, other than Town Standards, which do not contain original design, shall be stamped by a Professional Engineer registered in Massachusetts as an indication of compliance with the design or appropriate standards but shall not be construed as indicating any responsibility for the original design.
- 3.02.5.** The Contract Sum shall include the cost of furnishing all detail drawings.

3.03 Conformity with Plans and Specifications

- 3.03.1.** Attention is directed to Chapter 30, Section 39I which provides that no willful and substantial deviation from plans and specifications shall be made unless authorized in writing by the awarding authority or by the Engineer in charge of the Work who is duly authorized by the awarding authority to approve such deviation. This act further provides that in order to avoid delays in the prosecution of the Work, such deviation may be authorized by a written order of the awarding authority, or such Engineer as is authorized to approve such deviation, and that within 30 days thereafter such written order shall be confirmed by a certificate of the awarding authority.
- 3.03.2.** All work performed and all materials furnished shall be in conformity with the lines, grades, cross sections, dimensions, details, gradations, physical and chemical characteristics of materials and other specific requirements of the Contract.
- 3.03.3.** Where definite tolerances are specified in the Contract, such tolerances shall fix the limits of conformity. Where tolerances are not specified in the Contract, the Engineer will determine the limits of conformity in each individual case and their decision shall be final and conclusive and accepted by all parties.
- 3.03.4.** In the event the Engineer finds the materials or the finished product in which the materials are used not within conformity with the plans and specifications, the Engineer may determine to accept the nonconforming Work. In this event, the Engineer will document the basis of acceptance by contract modification which will provide for an appropriate adjustment in the contract price for such Work or materials as the Engineer in their sole discretion deems necessary.
- 3.03.5.** In the event the Engineer finds the materials or the finished product in which the materials are used or the work performed are not in conformity with the plans and specifications and have resulted in an inferior or unsatisfactory product, the work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor to the satisfaction of the Engineer.
- 3.03.6.** Deviations from the approved plans and working drawings that may be required by the need of the construction, shall be determined by the Engineer and authorized by the Engineer in writing.

3.04 Coordination Special Provisions, Plans, Supplemental Specifications and Standard Specifications

- 3.04.1.** The Special Provisions, Plans (including Town Standards), Supplemental Specifications, Standard Specifications and all supplementary documents are essential parts of the Contract and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In the event of any discrepancy between the drawing and figures written thereon, the figures, unless obviously incorrect, are to govern over scaled dimensions. In the case of any discrepancy between the plans and the specifications, the plans are to govern. If there is a discrepancy between these Standard Specifications and Supplemental Specifications, the Supplemental Specifications are to govern. Special Provisions shall govern over Supplemental Specifications, Plans and Standard Specifications.

3.04.2. The Contractor shall take no advantage of any apparent error or omission in the Plans or Specifications. In the event the Contractor discovers such an error or omission, the Contractor shall immediately notify the Engineer. The Engineer will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the Contract.

3.05 Cooperation by Contractor

3.05.1. The Town will provide to the Contractor three (3) copies of full-size Contract Drawings, Detail Sheets and Contract Specifications. The Contractor may request, and the Engineer may approve furnishing additional copies of contract drawings either full or half-size at the Contractor's expense. The Contractor shall have one copy of all such on the Work site and available for reference at all times during the prosecution of the work. The Contractor shall have at all times, a competent superintendent or foreman capable of reading and understanding the plans and specifications and experienced in the type of work being performed, authorized to receive orders and to act for them.

3.05.2. The Contractor shall provide all reasonable facilities to enable the Engineer to make necessary measurements and to inspect the Workmanship and materials entering into the Work. The Contractor shall cooperate in the matter of setting and preserving stakes, bench marks, etc., for controlling the Work.

3.06 Town's Right to Perform Work and to Award Separate Contracts

3.06.1. In addition to the construction of the Project, the Town may perform other work related to the Project at the site with its own forces, have other work performed by utility suppliers, or award separate contracts for such work or other work on the site under these or other conditions of the contract. If the fact that such other work is to be performed is not noted in the Contract Documents, notice thereof will be given to the Contractor prior to commencement of such other work. If the Contractor believes that performance of such other work not noted in the Contract Documents will cause delay or additional cost to them, they may make a claim therefore in accordance with applicable provisions of the Contract Documents.

3.06.2. If after commencement of construction of the Work, the plans of the Contractor and any such separate contractors performing work in connection with the Project, or other contractors, are inconsistent with respect to methods, scheduling, progress or otherwise, the Contractor shall promptly notify the Town of any such inconsistency and the matter of such inconsistency shall be resolved by the Town, and the Contractor shall proceed in accordance with the Owner's decision. The Contractor shall have no claims against such separate contractors performing work in connection with the Project or other contractors for any delays arising from joint use of any work area or staging area, or from joint use of access or because of any ruling or determination of the Town regarding any such matter.

3.07 Inspection and Testing of Work

3.07.1. All materials and each part or detail of the Work shall be subject to inspection and testing by the Engineer. The Engineer shall be allowed access to all parts of the Work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection (such assistance may include furnishing labor, boats, tools, equipment, etc.) at no expense to the Town.

3.07.2. If the Engineer so requests, the Contractor, at any time before acceptance of the Work, shall remove or uncover such portions of the finished Work as may be directed. After examination, the Contractor shall restore said portions of the Work to the standard required by the specifications. Should the Work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra Work but should the Work so exposed or examined prove unacceptable, the uncovering or removing and the replacing of the covering or making good of the parts removed, shall be at the Contractor's expense.

3.07.3. Any work done or materials used without authorization by the Engineer may be ordered removed and replaced at the Contractor's expense.

3.07.4. The Contractor shall furnish written information to the Engineer stating the original sources of supply of all materials manufactured away from the actual site of the Work. In order to ensure a proper time sequence for required inspection and approval this information shall be furnished at least two weeks or as otherwise directed by the Engineer in advance of the incorporation in the Work of any such materials. The Town strongly encourages the use of recycled products, provided the manufacturer of the product stipulates that such products meet or exceed the performance standards for the intended use of said products. The Contractor must identify wherever recycled products are to be used.

3.07.5. For the purpose of observing work that affects their respective properties, inspectors for public agencies and the utility companies shall be permitted access to the Work, but all official orders and directives to the Contractor shall be issued by the Engineer.

3.07.6. The Contractor shall make no claim for delay or extension of the Contract Time arising directly or indirectly out of reasonably required inspection or testing or out of the Contractor's failure to give timely notice so as to permit performance or observance of inspections, testing or approvals. Inspections of the Work shall not relieve the Contractor of any obligations under this Contract. Without limiting any other provisions hereof, defective work shall be made good and unsuitable materials may be rejected, notwithstanding that such work and materials have been previously inspected by the Architect/Engineer and accepted or estimated for payment or paid for.

3.07.7. If the Engineer determines that any portion of the Work requires special inspection, testing, or approval the Engineer will instruct the Contractor to order such special inspection, testing or approval. If such special inspection or testing reveals a failure of the Work to comply strictly with the requirements of the Contract Documents, the Contractor shall correct such Work and bear all costs of such inspection, testing and corrections, including compensation for the Engineer's and other consultant's additional services made necessary by such failure; otherwise, the Town shall bear the costs of such inspection or testing, and an appropriate Change Order shall be issued. In no event shall the Contractor be entitled to any claim for delay or extension of the Contract Time as a result of any such inspection, testing or corrections.

3.08 Removal of Defective or Unauthorized Work

3.08.1. All defective Work shall be removed, repaired or made good, notwithstanding that such Work has previously been inspected and approved or estimated for payment. If the Work or any part thereof shall be found defective at any time before the final acceptance of the whole Work, the Contractor shall at their own expense make good such defect in a satisfactory manner.

3.08.2. Any Work done beyond the lines and grades shown on the plans or as given, except as herein provided, or any extra Work done without authority, shall be considered as unauthorized and at the expense of the Contractor. Such Work will not be measured nor compensation allowed therefore. Work so done may be ordered removed at the Contractor's expense.

3.08.3. Upon failure of the Contractor to remove and satisfactorily dispose of any or all defective or unauthorized Work, and to remedy the same after being so notified, the Engineer may cause such defective Work to be remedied, removed and replaced and such unauthorized Work to be removed, and to deduct the costs therefore from any moneys due or to become due the Contractor.

3.09 Contractor's Responsibility for the Work

3.09.1. Until written acceptance of the physical Work by the Town Engineer, the Contractor shall assume full charge and care thereof and the Contractor shall take every necessary precaution against injury or damage to the Work by action of the elements, or from any cause whatever, whether arising from the execution or the non-execution of the Contract, and especially when blasting is to be done.

3.09.2. The Contractor shall bear all losses resulting to them on account of the amount or the character of the Work or because the nature of the land in or on which the Work is done is different from what was estimated or expected, or on account of the weather elements or other causes (except as slated in Subsection 2.02.3, Changed Conditions).

3.09.3. The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the Work occasioned by any of the above causes before the completion and written acceptance of the physical Work, and shall bear the expense thereof. The repair of such damages shall be done by the Contractor and paid for at the respective contract unit prices for the quantity and items of Work involved.

3.09.4. In case of suspension of Work from any cause whatsoever, the Contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the project, provide for normal drainage and shall erect any necessary temporary structures, signs, or other facilities at their expense. During such period of suspension of Work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings and seeded/sodded furnished under their Contract and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

ARTICLE 4

LABOR AND MATERIALS

4.01 Source of Supply and Quality of Materials

- 4.01.1.** All materials and equipment shall be of first quality and new and of recent manufacture, except as otherwise expressly provided in the Contract Documents. If required by the Engineer, or the Town, the Contractor shall furnish written information or other satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment and stating the original sources of supply of materials and products manufactured or produced at locations other than the site of the Work. In order to permit time for required inspections, testing and approvals, such information shall be furnished at least thirty days (or as otherwise directed by the Town) in advance of the incorporation of any such materials or products in the Work. The Contractor shall make no claim for delay or extension of the Contract Time arising directly or indirectly out of their failure to select materials or products early enough to permit a reasonable time for completion of inspections, testing or approvals, or because of the Contractor's purchase of materials or products in advance of approval.
- 4.01.2.** Reference in the Specifications or Drawings to any product, material, equipment, method or process by proprietary name, manufacturer, vendor, supplier, make or catalogue number shall be interpreted as establishing a standard of quality. The Contractor may propose deviations or requests for substitutions, provided that the proposed deviation or substitute item is at least equal or better in quality, durability, appearance, strength and design, and will perform at least equally the functions required or implied by the Work. The Town shall be the sole judge of whether any proposed substitute product, material, equipment, process or method is equal to or better than that specified according to this standard, and its decision shall be final and binding on the Contractor and any Subcontractor.
- 4.01.3.** The Town will consider formal requests made through the Engineer for the substitution of products in place of those specified only under the conditions set forth in the Specifications, unless otherwise expressly agreed by Town in its sole discretion.
- 4.01.4.** Any additional cost, or any loss or damage arising from the substitution of any material or any method for those originally specified shall be borne by the Contractor, including, without limitation, the costs of modifying documents and additional fees of the Architect, the Owner's consultants or engineers, notwithstanding approval or acceptance of such substitution by the Owner, unless such substitution was made at the written request or direction of the Owner.

4.02 Delivery and Storage of Materials

All materials and equipment shall be delivered, handled, stored, installed and protected to prevent damage in accordance with the best current practice in the industry, in accordance with the manufacturers' specifications and recommendations, and in accordance with Contract Document requirements. The Contractor shall deliver materials and equipment in ample time to facilitate inspection and tests prior to installation. The term "delivery" in reference to any item specified or indicated, means the unloading and storing with proper protection at the site. Damaged materials or equipment may be rejected.

4.03 Defective Materials

The Contractor shall be responsible for determining that all materials furnished for the Work meet all the requirements of the Contract Documents. The Owner or Engineer may require the Contractor to produce reasonable evidence that a material meets such requirements, such as certified reports of studies by qualified experts, or other evidence which, in the opinion of the Engineer, would lead to a reasonable certainty that any material used, or proposed to be used, in the Work meets the requirements of the Contract Documents.

4.04 Labor

- 4.04.1.** The Contractor shall at all times enforce strict discipline and good order among their employees and the employees of its Subcontractors and shall not employ or permit to be employed on the Work any person who is not properly skilled in the work to be performed by it or who is otherwise unfit. Whenever the Owner shall notify the Contractor in writing that any person employed on the Work is, in the Owner's opinion, incompetent, disorderly or otherwise unsatisfactory, such person shall be discharged and shall not again be employed on the Work except with the consent of the Owner.
- 4.04.2.** The Contractor shall furnish labor that can and will work in harmony with all other elements of labor employed or to be employed on the Project. The costs of maintaining labor harmony, including without limitation, the cost of security, public safety measures and necessary traffic management shall be paid by the Contractor and the Contractor shall have no claim for any costs of maintaining labor harmony.

ARTICLE 5 **LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC**

5.01 Laws to be Observed

The Contractor shall keep themselves fully informed of all Massachusetts and Federal laws and municipal ordinances and regulations in any manner affecting those engaged or employed in the Work, or the materials used in the Work, or in any way affecting the conduct of the Work, and of all orders and decrees of bodies or tribunals, having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the Contract for the Work in relation to any law, ordinance, regulation, order or decree; the Contractor shall forthwith report the same to the Engineer in writing. The Contractor shall at all times observe and comply with and shall cause all their agents and employees to observe and comply with all existing laws, ordinances, regulations, orders and decrees.

5.02 Permits and Licenses

The Contractor shall procure all required permits and licenses, pay all charges, fees and taxes and shall give all notices necessary and incidental to the due and lawful prosecution of the Work. The cost thereof shall be included in the prices bid for the various items listed in the Proposal. Copies of all required permits and licenses shall be filed with the Engineer prior to the beginning of work.

5.03 Insurance Requirements

5.03.1. The Contractor shall purchase and maintain such insurance as will protect it and the Town from claims referred to below which may arise out of or result from the Contractor's performance of the Work, whether such performance be by itself or by any Subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.

The Contractor shall purchase and maintain during the life of this Contract:

1. Insurance sufficient to discharge its obligations under all applicable workers' or workmen's compensation laws of the Commonwealth of Massachusetts and the United States.
2. Employer's liability insurance with minimum limit per accident or disease of One Million Dollars (\$1,000,000.00).
3. Statutory disability and other employee benefit insurance.

The Contractor shall purchase and maintain commercial general liability insurance including a comprehensive broad form endorsement and covering the full scope of this Contract with limits not less than One Million Dollars (\$1,000,000) per occurrence and Six Million Dollars (\$6,000,000) aggregate for personal or bodily injuries, and One Million Dollars (\$1,000,000) per occurrence and aggregate for property damage. A combined single limit per occurrence of Six Million Dollars (\$6,000,000) is acceptable. Such insurance shall include at least the following:

1. Commercial general liability insurance, including all products, premises-operations, completed operations for at least three years following acceptance and final payment, independent contractors, additional interests of employees, sudden and accidental pollution and contamination, and incidental medical malpractice, and including notice of occurrence and knowledge of occurrence endorsements satisfactory to the Owner.
2. Business automobile liability insurance covering use of any motor vehicle to be used in conjunction with this Contract.
3. Loading and unloading of any motor vehicle must be covered by endorsement to the comprehensive (or compulsory) automobile liability policy.
4. Blanket contractual liability insurance covering all liabilities assumed under the Contract Documents, including, but not limited to, the Contractor's obligations under Section 5.09.
5. Personal injury coverage endorsement (coverages A, B and C), with no exclusions for liability assumed contractually or injury sustained by employees of the Contractor.
6. Broad form coverage for damage to property of the Owner, as well as other third parties, while in the care, custody, or control of the Contractor.

Coverage for the so-called "ECU" hazards (explosion, collapse of buildings, blasting, undermining, and damage to underground property). Before any blasting is done, the Contractor shall present evidence that blasting damage is included in the Contractor's insurance coverage.

5.03.2. Insurance similar to that required of the Contractor shall be provided by or on behalf of all Subcontractors to cover their operations performed under the Contract Documents. The Contractor shall be held responsible for compliance with and enforcement of the insurance requirements and for any modifications of these insurance requirements as they apply to Subcontractors. The Contractor shall not permit any Subcontractor to commence work until such Subcontractor has furnished evidence that insurance has been procured and certificates of insurance, together with copies of the insurance policies, have been obtained by the Contractor providing that, in event of material change in or cancellation of Subcontractor's policies, thirty (30) days advance written notice will be given to the Contractor by registered mail. Copies of such certificates and policies shall be delivered to the Owner, who shall be designated as a certificate holder.

5.03.3. The Contractor and the Subcontractors listed below shall also purchase and maintain umbrella form excess liability insurance in the limits specified below. The required primary insurance shall be listed as underlying coverage in the first layer of the umbrella policy. The Contractor's umbrella excess policies shall contain a minimum total occurrence and aggregate limit of Ten Million Dollars (\$10,000,000). Subcontractor's umbrella excess policies shall contain total occurrence and aggregate limits not less than One Million Dollars (\$1,000,000).

5.03.4. Insurance certificates and copies of insurance policies acceptable to the Owner evidencing the above coverages are to be furnished the Owner by the Contractor's insurance company prior to commencement of the Work. Such certificates and all insurance policies required by this Section 5.03 shall name the Owner as an additional insured and shall contain provisions requiring at least 30 days' prior written notice to the Owner of any cancellations or material change in the policies. Certificates shall indicate effective dates and dates of expiration of policies. An additional certificate evidencing continuation of all insurance coverages required to remain in force after final payment shall be submitted with the application for final payment, and neither final payment nor any remaining retainage under this Contract shall be due until such certificate has been submitted to the Owner.

5.03.5. The Owner is to be furnished originals or certified copies of the policy or policies including all endorsements required to provide stated coverage prior to the commencement of Work.

5.03.6. All insurance policies provided pursuant to the foregoing provisions of these insurance requirements shall be written by companies licensed to do business in the Commonwealth of Massachusetts and shall be in form satisfactory to the Owner. All required insurance policies are to be endorsed to state that the Contractor's policies shall be primary to all other insurance available to the Owner for liability arising out of or resulting from the Contractor's performance of the Work under the Contract, whether such performance be by Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable. The Contractor shall bear all costs of any amounts deductible, retained or self-insured under the policies required to be maintained by the Contractor.

5.03.7. The purchase of insurance to satisfy the above requirements, or the furnishing of certificates evidencing same, shall not be a satisfaction of Contractor's liability under this Contract or in any way modify Contractor's indemnification of the Owner.

5.04 Indemnification

To the fullest extent permitted by law, the Contractor shall indemnify, defend with counsel acceptable to the Owner and hold harmless the Owner, their employees, officers and agents from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of, relating to or resulting from (a) performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, and is caused in whole or in part by acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, or (b) any breach or failure of the Contractor to comply with the terms and conditions of the Contract Documents, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section. The Contractor shall give the Owner prompt notice of any incident which might result in a claim hereunder.

5.05 Payment to Subcontractors

In conformity with the requirements of Chapter 30, Section 39F of the General Laws, as amended, the following is quoted from Chapter 30, Section 39F.

Every contract awarded pursuant to Sections forty-four A to L, inclusive, of chapter one hundred and forty-nine shall contain the following subparagraphs (a) through (i) and even contract awarded pursuant to Section thirty-nine M of chapter thirty shall contain the following subparagraphs a) through (h) and in each case those subparagraphs shall be binding between the general contractor and each subcontractor:

- “(a) Forthwith after the general contractor receives payment on account of a periodic estimate, the general contractor shall pay to each subcontractor the amount paid for the labor performed and the material furnished by that subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.”
- “(b) Not later than the sixty-fifth day after each subcontractor substantially completes their Work in accordance with the plans and specifications, the entire balance due under the subcontract less amounts retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of Work, shall be due the subcontractor; and the awarding authority shall pay that amount to the general contractor. The general contractor shall forthwith pay to the subcontractor the full amount received from the awarding authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.”
- “(c) Each payment made by the awarding authority to the general contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a subcontractor shall be made to the general contractor for that account of that subcontractor; and the awarding authority shall take reasonable steps to compel the general contractor to make each such payment to each such subcontractor. If the awarding authority has received a demand for direct payment from a subcontractor for any amount which has already been included in a payment to the general contractor or which is to be included in a payment to the general contractor for payment to the subcontractor as provided in subparagraphs (a) and (b), the awarding authority shall act upon the demand as provided in this Section.”

“(d) If, within seventy days after the subcontractor has substantially completed the Work, the subcontractor has not received from the general contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of Work, the subcontractor may demand direct payment of that balance from the awarding authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the general contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract Work. Any demand made after substantial completion of the subcontract Work shall be valid even if delivered or mailed prior to the seventieth day after the subcontractor has substantially completed the subcontract Work. Within ten days after the subcontractor has delivered or so mailed the demand to the awarding authority and delivered or so mailed a copy to the general contractor, the general contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the awarding authority and a copy shall be delivered to or sent by certified mail to the subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor and of the amount due for each claim made by the general contractor against the subcontractor.”

“(e) Within fifteen days after receipt of the demand by the awarding authority, but in no event prior to the seventieth day after substantial completion of the subcontract Work, the awarding authority shall make direct payment to the subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount (i) retained by the awarding authority as the estimated cost of completing the incomplete or unsatisfactory item of Work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the general contractor in the sworn reply; provided that the awarding authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The awarding authority shall make further direct payments to the subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.”

“(f) The awarding authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the general contractor and the subcontractor in a bank in Massachusetts selected by the awarding authority or agreed upon by the general contractor and the subcontractor and shall notify the general contractor and the subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the general contractor and the subcontractor or as determined by decree of a court of competent jurisdiction.”

- “(g) All direct payments and all deductions from demands for direct payments deposited in an interest-hearing account or accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable to the general contractor at the time of receipt of a demand for direct payment from a subcontractor and out of amounts which later become payable to the general contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the awarding authority to the general contractor to the extent of such payment.”
- “(h) The awarding authority shall deduct from payments to a general contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (1) are sufficient to satisfy all unpaid balances of demands for direct payment received from subcontractors. All such amounts shall be earmarked for such direct payments, and the subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the general contractor.”

5.06 Personal Liability of Public Officials

In carrying out any of the provisions of these specifications, or in exercising any power or authority granted to them by or within the scope of the Contract, there shall be no liability upon the Town, or its authorized representatives, either personally or as officials of the Town, it being understood that in all such matters they act solely as agents and representatives of the Town.

5.07 No Waiver of Legal Rights

The Town shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the physical completion and final acceptance of the Work and payment therefore, from showing the true amount and character of the Work performed and materials furnished by the Contractor, nor from showing that any such measurement, estimate or certificate is untrue or is incorrectly made, nor that the Work or materials do not in fact conform to the Contract. The Town shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or their sureties, or both, such damage as it may sustain by reason of their failure to comply with the terms of the Contract. Neither the acceptance by the Town, or any representative of the Town, nor any payment for any acceptance of the whole or any part of the Work, nor any extension of time, nor any possession taken by the Town, shall operate as a waiver of any portion of the Contract of any power herein reserved, or of any right to damages. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach. Any remedy provided in the Contract shall be taken and construed as cumulative, that is, in addition to each and every other remedy herein provided; and the Town shall also be entitled as of right to a writ of injunction against any breach of the provisions of the Contract.

5.08 Traffic Safety

- 5.08.1.** The Contractor shall carry on their Work in a manner acceptable to the Engineer to that a reasonably safe uninterrupted traffic flow is maintained through the project during the entire construction period. All streets and intersections shall be kept open to traffic at all times. The Contractor is responsible for all work zone signage which shall be installed in accordance with the 2009 Manual of Uniform Traffic Control Devices All excavated material shall be placed so that vehicular and pedestrian traffic may be maintained at all times. If the Contractor's operations cause traffic hazards, they shall repair the road surface, provide temporary ways, erect steel guards or fences, or take other measures for safety satisfactory to the Engineer.

5.08.2. Detours around construction shall be kept to a minimum and will be subject to the approval of the Engineer. Where detours are permitted the Contractor shall provide all necessary barricades and signs as required to divert the flow of traffic. No road closures shall be allowed without the permission of the Engineer and the Police Department. The Contractor shall notify the local Fire and Police Departments prior to the closure of any roadway. Provisions must be made for emergency vehicles and local traffic to use the road. See the Massachusetts Department of Transportation's Access Permit and Traffic Plan for work conditions on State roads.

5.08.3. The Contractor, as directed, shall at all times conduct the Work so that the abutters shall have reasonable access to their property. When public or private property is isolated by the closure of a roadway, the Contractor shall be responsible for providing such reasonably safe means of access to a public way as the Engineer deems essential and the Contractor shall be compensated for all such Work directed by the Engineer at the contract unit prices for the type of work and materials involved. When it is necessary to leave materials and equipment upon the highway, they shall be placed so as to cause the least possible obstruction to drainage, pedestrians, bicyclists and other travel.

5.08.4. It shall be the Contractor's responsibility to ascertain whether haul routes are over accepted public or private ways prior to using same for hauling purposes and it is their further responsibility to ascertain if any have posted legal weight limitations or other restrictions and to abide by them. If the Contractor uses a private way for hauling, the Contractor shall be solely responsible for any claims, liability costs, damage, or expenses arising from such use.

5.08.5. The Contractor shall furnish, erect and maintain regulatory, warning and guide signs, traffic control signals, markings, safety lighting and any other traffic devices as the Town deems necessary for the safe flow of traffic during construction.

5.08.6. Highways wholly or partly closed to traffic shall be protected by suitable barricades, barrier fences, traffic signs and other traffic devices, furnished and erected by the Contractor at locations shown on the plans, or as directed. The Contractor shall at their own expense provide and erect, acceptable or as directed, barricades, barrier fences, traffic signs, and all other traffic devices to protect the Work from traffic, pedestrians or animals. The Contractor shall at their own expense provide sufficient temporary lighting such as flares, lanterns, or other approved illuminated traffic signs and devices, to afford adequate protection to the traveling public. The Contractor shall also at their own expense furnish a sufficient number of watchmen at all times to protect the Work.

5.08.7. The Contractor's attention is directed to Chapter 231 of the Acts of 1977 which stipulates that, surveyors of highways, road commissioners, or any other person, agency or authority responsible for road or highway repairs shall notify the Massachusetts Bay Transportation Authority not later than forty-eight hours prior to the repair, construction or reconstruction of any road or highway used by said Authority in the operation of regular route service if such repairs, construction or reconstruction shall prohibit the operation of regular route service by the Authority over such road or highway.

5.08.8. All barricades, barrier fences, traffic signs and other traffic devices must conform to the Manual on Uniform Traffic Control Devices (MUTCD).

5.08.9. The Contractor shall be held responsible for all damage to the Work due to any failure of barricades, barriers, warning signs or lights to properly protect the Work from traffic, pedestrians or other causes.

5.08.10. The Contractor shall coordinate with the Engineering Department to provide such police officers, as the Engineer deems necessary, for the direction and control of traffic within the site of the improvement. Such officers shall wear regulation policemen's uniforms. There may be reserve or special officers subject to the control of and paid directly by the Contractor, or regular officers not subject to the control of the Contractor. Compensation for the services of said regular police officers may be paid by the Contractors to their employers or paid directly by the Contractor to such regular police officers, or paid by the Contractor to a designated municipal official, at a patrolman's rate of pay, subject to all rules and regulations, ordinances or by-laws in effect in the city or town in which the Work is to be performed.

5.08.11. The Town shall reimburse the Contractor for payments made for the services of all required traffic officers, together with such payments as the Contractor will have made for reserve or special officers under the Massachusetts Workmen's Compensation Act (General Laws, Chapter 152, Section 1, as amended), Liability Insurance, and for payments as the Contractor is required in writing by proper authority to make under the Massachusetts Employment Security Act (General Laws, Chapter 151A) and the Federal Social Security Act (United States Code, Title 26 and 42). The Contractor is required to submit to the Engineer copies of this written requirement for the Massachusetts Employment Security Act and the Federal Social Security Act.

5.08.12. The rates of wages paid by the Contractor to such police officers shall be the same as those paid to police officers working on special details. When the Contractor is required to submit weekly certified copies of payroll separate certified copies of payroll covering only such reserve and special police officers shall be submitted containing complete payroll information.

5.09 Safety of Persons and Property

5.09.1. The Contractor shall take all necessary precautions for the safety of, and shall provide all protection necessary to prevent damage, injury or loss to:

- A. all employees on the Work and all other persons or other entities who may be affected thereby;
- B. all the Work and all materials and equipment to be incorporated therein, whether in storage on or off the site; and
- C. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, improvements and utilities not designated for removal, relocation or replacement in the course of construction.

5.09.2. Without limitation, the Contractor shall provide security watch service at all such times as are necessary to protect the interests of the Contractor and the Owner and to provide for the safety and security of the general public, employees and agents of the Owner, and other persons who may be affected by the Work, and to exclude unauthorized persons from the site.

5.09.3. The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including fencing and posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities and other improvements as more particularly set forth in the Specifications.

5.09.4. In general, the Contractor shall take special precautions at all times to protect and preserve natural surroundings and roadside growth either within or adjacent to the location from damage or injury due to their operations. The Contractor shall not, except by written permission of the Engineer, remove, destroy, or trim such roadside trees or shrubs. Any trees or landscape features carelessly scarred or damaged by the Contractor's operations shall be removed and replaced or neatly trimmed and restored as nearly as possible to the original condition as required by the Engineer. In general, the Contractor shall be responsible for all damage to roadside growth due to their operations and shall, without compensation, satisfactorily repair or replace all such damage.

5.09.5. All scars on trees shall be painted as soon as possible with an approved tree paint.

5.10 Trenches and Pits

5.10.1. Trenches shall not be opened in traveled ways until all materials and equipment required for the Work are at the site and available for immediate use. When Work is not in progress trenches in areas subject to public travel shall be covered with steel plates capable of safely sustaining an HS20 truckload with impact. The Work at each trench shall be practically continuous, with the placing of conduit and piping, backfilling and patching of the surface closely following each preceding operation.

5.10.2. At the end of each working day where trenches in areas of public travel are covered with steel plates, each edge of such plates shall either be beveled or protected by a slope of one (1") inch vertically to two (2'-0") feet horizontally. Any temporary patching material may be used to construct the ramps. The cost of necessary patching materials, and their maintenance and removal, shall be considered incidental to the item involved with no separate payment.

5.10.3. Pending installation of castings, all structures in travel ways or deemed hazardous by the Engineer shall be protected with suitable covers (steel plates or equal) capable of withstanding an HS20 truckload with impact. The cost of necessary covers or plates shall be considered incidental to the item involved with no separate payment.

5.11 Use of Explosives

5.11.1. When the use of explosives is necessary for the prosecution of the Work, the Contractor shall exercise the utmost care not to endanger life and property including new work and whenever directed, the number and size of the charges shall be reduced. The Contractor shall be responsible for all damage resulting from the use of explosives. All explosives shall be stored in a secure manner in conformance with all the State laws and regulations, as well as any local requirements; and all such storage places shall be marked – “Dangerous – Explosives”.

5.11.2. The Contractor shall be required to conform to the regulations of the Massachusetts Department of Public Safety concerning storage, handling and use of explosives.

5.11.3. Prior to start of the blasting, the Contractor shall give at least a 24-hour notice and a schedule of their operations thereof to the operating official, company, or companies leasing, owning or responsible for pipes, conduits, poles, wires, railroad tracks, or any other public or private utility which may be endangered by the blasting in order that a representative of said owner or lessee may be present at the site. The Contractor shall make proper precaution to prevent injury to said properties during all blasting operations.

5.11.4. The Fire Chief may require use of a Fire Department detail to monitor the blasting operation. The cost of such a detail will be borne by the Contractor.

5.12 Public Utilities

5.12.1. The Contractor shall, at their own expense, preserve and protect from injury all property either public or private along and adjacent to the proposed Work, and the Contractor shall be responsible for and repair at their own expense any and all damage and injury thereto, arising out of or in consequence if any act of omission, neglect or misconduct in the execution of the Work. The Contractor shall exercise special care during their operations to avoid injury to underground structures such as water or gas mains, pipes, conduits, manholes, catch basins, etc.

5.12.2. Written notice shall be given by the Contractor to all public service corporations or officials owning or having charge of public or private utilities of their intention to commence operations affecting such utilities at least 48 hours (exclusive of Saturdays, Sundays and legal holidays) in advance of the start of such operations in accordance with Chapter 82, Section 40 of the General Laws, as amended, and the Contractor shall at the same time file a copy of said notice with the Engineer.

5.12.3. When necessary, the Contractor shall cooperate with representatives of public service companies in order to avoid damage to their structures by furnishing and erecting suitable supports, props, shoring or other means of protection. Fire hydrants adjacent to the Work at all times shall be readily accessible to fire apparatus and no material or other obstructions shall be placed within a radius of ten (10'-0") feet of a fire hydrant.

5.12.4. Although the plans may indicate the approximate location of existing subsurface utilities in the vicinity of the Work, the accuracy and completeness of the information is not guaranteed by the Town. Before commencing any work or operations which may endanger or damage any subsurface structures, the Contractor shall carefully locate all such structures and conduct their operations in such manner as to avoid damage thereto. The Contractor shall not interrupt live services until new services have been provided. All abandoned services shall be plugged or otherwise made secure.

5.12.5. The Contractor shall receive no extra compensation for such Work unless a Change Order is issued pursuant to Subsection 2.02 (except test pits as directed to be made in order to locate existing underground structures).

5.12.6. If the Contractor wishes to have any utilities temporarily relocated for their convenience other than contemplated by the Town, the Contractor shall make the necessary arrangement with the owners and make reimbursement for the cost thereof at their own expense.

5.12.7. Land monuments and property marks shall be carefully protected and if necessary to remove the same, the Contractor shall do so only at the Engineer's direction and after an authorized agent has witnessed or otherwise referenced their location. The Contractor shall not injure or remove trees or shrubs without proper authority. Insofar as possible the Contractor shall confine their movements and operations to the area within the limits of the location and the area outside the scope of the Work shall not be disturbed except as directed.

5.12.8. The bidder's attention is directed to the code of Federal Regulations Part 1926 - Safety and Health Regulations for Construction, Subpart N 1926.550, relating to construction equipment clearances at overhead electric lines, which states in part "The minimum clearance between the lines and any part of the crane or load must be at least ten (10'-0") feet from lines rated 50 kV or below, and greater distances for higher voltages". For the protection of personnel and equipment, the Contractor should be aware of this regulation especially during paving operations using large semi-trailer vehicles.

ARTICLE 6 **PROSECUTION AND PROGRESS**

6.01 Subletting or Assignment of Contract

- 6.01.1.** The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the Contract or *any* portion thereof, or of their right, title or interest therein without written consent of the Engineer. In case such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with their own organization work amounting to not less than 50 percent of the original total Contract price, except that any items designated in the Contract as specialty items may be performed by Subcontract and the cost of any such specialty items so performed by Subcontracts may be deducted from the total cost for the purpose of computing the amount of Work required to be performed by the Contractor with their own organization. No Subcontractors, or transfer of Contract, shall in any case release the Contractor of liability under the Contract and Bonds.
- 6.01.2.** The Contractor shall notify the Engineer, prior to execution of the Contract, of the name and address of each Subcontractor the Contractor intends to employ, the portion of the Work which the Subcontractor is to perform, and such other information the Engineer may require in order to ascertain whether the Contractor will be in compliance with Subsection 6.01.1 and as to whether the Subcontractor is reliable and able to perform the Work.
- 6.01.3.** No specialty items are included as part of the Work to be performed under the Contract.

6.02 Schedule of Operations

- 6.02.1.** The Contractor shall submit to and for the comments of the Engineer, a schedule of operations (“Schedule”) within ten days after the execution of Contract by Contractor. The Schedule shall show the proposed methods of construction and sequence of work and the time the Contractor proposes to complete the various items of work within the Contract Time.
- 6.02.2.** If the Contractor has failed to comply with the submitted and reviewed Schedule, the Contractor shall submit a revised Schedule if requested by the Engineer within seven days after the date of the Engineer’s request. This revised schedule shall show how the Contractor proposes to prosecute the balance of the Work so as to complete the Work within the time specified in the Contract.
- 6.02.3.** The Contractor shall, with each Application for Payment, submit bar charts including the order of precedence of the remaining portions of the Work, in a form acceptable to Owner.
- 6.02.4.** The Contractor acknowledges and agrees that if the Contractor fails to achieve Substantial Completion of the Work within the Contract Time, the Owner will incur costs and damages which are difficult to ascertain. Accordingly, except for delays which are expressly executed pursuant to this Agreement, the Contractor shall pay liquidated damages to the Owner in the amount of Two Thousand Two Hundred Dollars (\$2,200.00) per day to cover the losses, expenses, damages and liabilities of the Owner arising out of any failure by Contractor to achieve Substantial Completion of the Work with the Contract Time.

6.03 Prosecution of Work

- 6.03.1.** The Contractor shall commence Work within 15 days after the mailing of the executed Contract to the Contractor unless otherwise ordered in writing by the Engineer, and the Contractor shall thereafter prosecute the Work at such places and in such order as the Engineer may from time to time prescribe. Should the prosecution of the Work for any reason be discontinued, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations.
- 6.03.2.** The Contract Work shall be expedited when the Engineer determines that the safety and/or the conveniences of the public necessitates an earlier completion date for the performance of the Work contained in the contract.
- 6.03.3.** Compensation for expediting the Work shall be based on the actual added cost of direct labor as applied to the overtime labor cost only. The contractor shall accept as full compensation for the actual added cost of expediting the contract Work the following:
 - A. The added overtime premium portion of the direct labor costs (the premium labor cost less [minus] the regular time labor cost);
 - B. Plus the actual cost for payroll taxes associated with A. above.
 - C. Plus an overhead additive of 10% of the total of A. and B. above for related overhead.
 - D. Plus any proportionate added cost for surety bond.
- 6.03.4.** For Work performed by a Subcontractor, the Contractor shall accept as full payment thereof an amount equal to the added cost to the Subcontractor as determined above, plus 10% of such cost.
- 6.03.5.** No allowance shall be made for general superintendence as such costs shall be considered reimbursed under the overhead additive applied to direct labor. No allowance shall be made for any additional equipment, equipment operating costs, or the use of small tools and manual equipment.
- 6.03.6.** The Contractor shall have on-site a supervisor with expertise and authority to direct the construction operations and act as the Contractor's representative if the Project Manager is not on site. The Contractor's Project Manager shall be accessible at all times by mobile telephone.
- 6.03.7.** The Contractor shall attend weekly project meetings, if requested by the Engineer, to review performance, schedule and punch list items.

6.04 Claim for Delay or Suspension of the Work

- 6.04.1.** The Engineer shall have the authority to delay the commencement of the Work and delay or suspend any portion thereof; for such period or periods as the Engineer may deem necessary because of conditions beyond the control of the Town, or the Contractor; or beyond the control of the Town and the Contractor; for the failure of the Contractor to correct conditions unsafe for the general public; for failure to carry out provisions of the Contract; for failure to carry out orders, for causes and conditions considered unsuitable for the prosecution of the Work; for acts of third persons not a party to the Contract; or for any other cause, condition, or reason deemed to be in the public interest.
- 6.04.2.** Upon receipt of written order of the Engineer, the Contractor shall immediately delay the commencement of the Work or delay or suspend any portion thereof in accordance with said order. No Work shall be suspended or delayed without the prior written approval or order of the Engineer. The Work shall be resumed when conditions so warrant or deficiencies have been corrected and the conditions of the Contract satisfied ordered or approved in writing by the Engineer.
- 6.04.3.** The Contractor hereby agrees that the Contractor shall have no claim for damages of any kind against the Owner or the Engineer on account of any delay in the commencement of the Work and/or any hindrance, delay or suspension of any portion of the Work, whether such delay is caused by the Owner, the Architect, or otherwise except as and to the extent expressly provided under M.G.L. c30, §390 in the case of written orders by the Owner. The Contractor acknowledges that the Contractor's sole remedy for any such delay and/or suspension shall be an extension of time as provided in this Article.
- 6.04.4.** (Statutory reference: M.G.L. c. 30 §390) The Owner or Engineer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority; provided, however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract prices for any increase in the cost of performance of this contract but shall not include any profit to the Contractor on such increase; and provided further, that the awarding authority shall not make any adjustment in the contract price under this provisions for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.
- 6.04.5.** The Contractor must submit the amount of a claim under provision (a) to the awarding authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more than twenty days before the Contractor notified the awarding authority in writing of the act or failure to act involved in the claim.

6.04.6. In the event a suspension, delay, interruption or failure to act of the Owner or Engineer increases the cost of performance to any Subcontractor, that Subcontractor shall have the same rights against the Contractor for payment for an increase in the cost of their performance as provisions (a) and (b) give the Contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the Contractor or the Subcontractor may have against each other.

6.05 Limitations of Operations

The Contractor shall conduct the Work at all times in such a manner and in such sequence as will assure the least interference with traffic and abutters. The Contractor shall have due regard to the location of detours and to the provisions for handling traffic. The Contractor shall not open up work to the prejudice or detriment of work already started.

6.06 Character of Workmen, Methods and Equipment

6.06.1. The Contractor shall at all times employ sufficient labor and equipment for prosecuting the several classes of work to full completion in the manner and time required by these specifications.

6.06.2. All workmen shall have sufficient skill and experience to perform properly the Work assigned to them workmen engaged in special Work or skilled Work shall have sufficient experience in such work and in the operation of the equipment required to perform all work properly and satisfactorily.

6.06.3. Any person employed by the Contractor or by any Subcontractor who, in the Engineer's judgment, does not perform their work in a proper and skilled manner or is intemperate or disorderly or otherwise unsatisfactory, shall at the written request of the Engineer, be removed forthwith by the Contractor or Subcontractor employing such person, and shall not be employed again in any portion of the Work without the approval of the Engineer. Should the Contractor fail to take the necessary action to remove such person or persons as required above or fail to furnish suitable and sufficient personnel for the proper prosecution of the Work, the Engineer may suspend the Work by written notice until such orders are complied with. All equipment which is proposed to be used on the Work shall be of sufficient size and in such mechanical condition as to meet requirements of the Work and to produce a satisfactory quality of Work. Equipment used on any portion of the project shall be such that no injury to the roadway, adjacent properly, or other highways will result from its use.

6.06.4. When the methods and equipment to be used by the Contractor is accomplishing the construction are not prescribed in the Contract, the Contractor is free to use any methods or equipment that they demonstrate to the satisfaction of the Engineer which will accomplish the contract Work in conformity with the requirements of the Contract.

6.06.5. When the Contract specifies the methods and equipment by which the construction be performed, such methods and equipment shall be used unless others are authorized by the Engineer, in writing. If the Contractor desires to use a method or type of equipment other than that specified in the Contract, the Contractor may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed to be used and an explanation of the reasons for desiring to make the change. If approval is given, it shall be in writing and it shall be on the condition that the Contractor will be fully responsible for producing construction work in conformity with contract requirements. If after trial use of the substituted methods or equipment, the Engineer determines that the Work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining construction with the specified methods and equipment. The Contractor shall remove the deficient work and replace it with work of specified quality or take such other corrective action as the Engineer may direct. No changes will be made in basis of payment for the construction items involved nor in contract time as a result of authorizing a change in methods or equipment under these provisions.

6.07 Default Termination

6.07.1. If the Contractor shall be adjudged a bankrupt, or if the Contractor shall make a general assignment for the benefit of their creditors, or if a receiver of their property shall be appointed, or if the Work to be done under the Contract shall be abandoned, or if the Contract or any part thereof shall be sublet without the previous written consent of the Town, or if the Contract or any claim thereunder shall be assigned by the Contractor otherwise than as herein specified, or if at any time in the Engineer's judgment and the Engineer so certifies in writing to the Town that the Work, or any part thereof, is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of the Contract, the Town may notify the Contractor to discontinue all Work, or any part thereof. Such notice shall be given to the Contractor in writing and thereupon the Contractor shall discontinue such Work or such part thereof, as the Town may designate, and the Party of the First Part shall require the surety or sureties to complete the Contract.

6.07.2. If the Engineer shall certify that the rate of progress is not satisfactory, the Town may instead of notifying the Contractor to discontinue all work or any part thereof, notify them from time to time to increase the force, equipment and plant, or any of them, employed on the whole or any part of the Work, stating the amount of increase required to insure the proper completion of the Work. The Contractor shall provide and maintain, at no additional cost to the Town, any lights necessary to protect the Work or the traveling public, for the safety of their construction forces and to insure the proper construction, inspection and prosecution of the Work. Unless the Contractor shall, within five days after any such notice, increase their force, equipment and plant to the extent required therein, and maintain and employ the same from day to day until the completion of the Work or such part thereof or until the conditions as to the rate of progress shall, in the Engineer's judgment, be fulfilled, the Town may employ and direct the labors of such additional force, equipment and plant as may, in the Engineer's judgment, be necessary to insure the completion of the Work or such part thereof within the time specified, or at the earliest possible date thereafter, and charge the expense thereof to the Contractor. Neither the notice from the Town to the Contractor, to increase their force, equipment or plant, nor the employment of additional force, equipment or plant by the Town shall be held to prevent a subsequent notice from the Town to them to discontinue work under the provisions of the preceding portion of this article.

6.07.3. All expenses charged under this Section 6. 11 shall be deducted and paid by the Town out of any moneys then due or to become due the Contractor under the Contract, or any part thereof, and in such accounting the Town shall not be held to obtain the lowest figures for the Work of completing the Contract or any part thereof, or for ensuring its proper completion, but all sums actually paid therefore shall be charged to the Contractor. In case the expenses so charged are less than the sum which would have been payable under the Contract if the same had been completed by the Contractor, the Contractor shall be entitled to receive the difference; and in case such expenses shall exceed the said sum, the Contractor shall pay the amount of the excess to the Town upon completion of the Work without further demand being made therefore.

6.08 Termination for Convenience

6.08.1. If the Town determines that it is in the public interest to do so, the Town may notify the Contractor to discontinue all work, or any part thereof. Such notice shall be given to the Contractor in writing and thereupon the Contractor shall discontinue such work, or such part thereof, as the Town may designate.

6.08.2. If the Town notifies the Contractor to discontinue all work, or any part thereof, the Town shall pay and the Contractor shall accept, as full payment for all Work done and materials provided, a sum agreed to by the Contractor and the Town or, if a sum cannot be agreed upon, the sum of **A.** plus **B.** determined as follows:

A. For Construction Related Costs

1. The actual costs for direct labor (direct labor costs shall include the actual salary costs of laborers, equipment operators, truck drivers, steel workers and other trades persons up to and including working foremen. The costs of general superintendence shall be considered included in field and/or home office Overhead.), materials (less salvage value, if any) and use of equipment (determined in accordance with Subsection 9.03 of the Standard Specifications), plus 10% of this total for overhead (the 10% additive is inclusive of both field and home office Overhead); and
2. The actual cost for Salary Related Costs such as Workmen's Compensation and Liability Insurance, Health, Welfare and Pension benefits, Social Security deductions, and Employment Security benefits; and
3. 10% of the total of 1. and 2. for profit; and
4. The estimated proportionate cost of surety bonds; and
5. The actual cost to the Contractor for work performed by a subcontractor, plus 10% of such cost.

No allowance shall be made for general superintendence and the use of small tools and manual equipment. General superintendence is that next level above the working foreman. The costs of general superintendence as well as use of small tools and manual equipment shall be considered included in field and/or home office overhead.

B. For Discontinuance Costs

The reasonable and necessary costs of storage, transportation and other costs incurred for the preservation, protection or disposition of the discontinued Work, which are pre-approved by the Town to be determined as follows:

1. The actual costs for direct labor (direct labor costs shall include the actual salary costs of laborers, equipment operators, truck drivers, steel workers and other trades persons up to and including working foremen. The costs of general superintendence shall be considered included in field and/or home office overhead.), materials (less salvage value, if any) and use of equipment (determined in accordance with Subsection 9.03 of the Standard Specifications), plus 10% of this total for overhead the 10% additive is inclusive of both field and home office overhead); and
2. The actual cost for Salary Related Costs such as Workmen's Compensation and Liability Insurance, Health, Welfare and Pension benefits, Social Security deductions, and Employment Security Benefits.

No allowance shall be made for general superintendence and the use of small tools and manual equipment. General superintendence is that next level above the working foreman. The costs of general superintendence as well as use of small tools and manual equipment shall be considered included in field and/or home office overhead.

The reasonable and necessary legal costs of work discontinuance, plus an additive of 10% for overhead (the additive is inclusive of both field and home office overhead), is allowable. The legal costs for litigation and/or negotiation purposes with the Town in settlement of said discontinuances is not allowable.

Any other reasonable and necessary costs for discontinuance that are pre-approved by the Town plus an additive of 10% for overhead (the additive is inclusive of both field and home office overhead).

When requested by the Town, the Contractor shall furnish itemized statements of the cost of the Work performed and shall give the Town (and/or the Town's Auditors) access to any and all financial and/or project records and documents, relating thereto. Unless the Contractor, when requested to do so, furnishes such itemized statements and access to any and all financial and/or project records and documents, the Contractor shall not be entitled to payment for the Work for which such information is sought by the Town.

The Contractor shall not be paid and the Contractor shall not have any claim for loss of anticipated profits or for any costs or profit in addition to those stipulated above; for loss of expected reimbursement or for any increased expenses resulting directly or indirectly from the discontinuance of any or all Work or from unbalanced allocation, among the contract items, of overhead expense on the part of the bidder and subsequent loss of expected reimbursement therefore or any other cause.

The Contractor shall incorporate the provisions of this Section as provisions in its contracts with each of their subcontractors.

The authority of the Town under this Section shall be in addition to the authority of the Town and/or Engineer under other Sections of these specifications.

ARTICLE 7

MEASUREMENT AND PAYMENT

7.01 Measurement of Quantities

- 7.01.1.** The quantities of the various items of work performed shall be determined for purposes of payment by the Engineer and by the Contract for purposes of the certification(s) of Work performed that are generally required by law and specifically by the provisions hereof.
- 7.01.2.** Upon the completion of the Work and before final payment is made the Engineer shall make final measurements to determine the quantities of the various items of Work performed, as the basis for final settlement. All measurements shall be made according to the United States standard units of measurements.
- 7.01.3.** The method of measurement and computations to be used in determination of quantities of material furnished and of Work performed under the Contracts shall be selected by the Engineer.
- 7.01.4.** Unless otherwise specified, longitudinal measurements for area computations shall be made horizontally, and no deductions will be made for individual fixtures having an area of ten square feet or less. Unless otherwise specified, transverse measurements for area computations shall be the neat dimensions shown on the plans or ordered in writing by the Engineer.
- 7.01.5.** Structures shall be measured according to neat lines shown on the plans or as altered to fit field conditions.
- 7.01.6.** All items which are measured by the foot, such as pipe, culverts, guardrail, under drains, etc., shall be measured parallel to the base or foundation upon which such structures are placed, unless otherwise shown on the plans.
- 7.01.7.** In computing volumes of excavation the average end area method or other methods acceptable to the Engineer will be used.
- 7.01.8.** When the term "gage" refers to the measurement of wire, it shall mean the wire gage specified in the AASHTO Designation M 32.
- 7.01.9.** All materials, which are specified for measurement by mass, shall be weighed on standard scales furnished by and at the expense of the Contractor. Such scales shall be sealed at the expense of the Contractor as often as is necessary to ensure their accuracy. A sworn weighed to be compensated by the Contractor shall weigh all materials required to be weighed as above provided. The weighing of such materials may be witnessed by the Engineer. If materials are shipped by rail or trucks, the car masses or quarry masses may be accepted, but scales shall be used as above, if so directed. Mass slips shall be provided for each shipment of material weighed. Each mass slip shall be signed by the sworn weighed. The mass slips shall be countersigned on delivery by the Engineer and no mass slip not so countersigned shall be included for payment under the Contract.

7.01.10. When requested by the Contractor in writing and approved by the Engineer in writing, material specified to be measured by the cubic yard may be weighed and such masses will be converted to cubic yards for payment purposes. Factors for conversion from mass measurement to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantity is used.

7.01.11. The term "lump sum" when used as a unit of payment will mean complete payment for the work described in the Contract.

7.01.12. When a complete structure or structural unit (in effect, lump sum work) is specified as the unit of measurement, the Unit will be construed to include all necessary fittings and accessories.

7.01.13. When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe, conduit, etc., and these items are identified by gage, unit mass, section dimensions, etc., such identification shall be considered to be nominal mass or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

7.02 Payments

The Town shall pay, and the Contractor shall receive and accept the compensation as herein provided, in full payment for furnishing all materials, labor, tools and equipment and for performing all approved Work contemplated and embraced under the Contract.

The payment of any current estimate, or any retained percentage shall in no way constitute an acknowledgment of the acceptance of the Work or in no way or degree prejudice or affect the obligation of the Contractor, at their own cost and expense, to repair, correct, renew or replace any defects and imperfections in the construction of, or in the strength of, or quality of materials used in or about the construction of the Work under Contract and its appurtenances, as well as all damages due or attributable to such defects; which defects, imperfections or damages shall have been discovered on or before the final inspection and acceptance of the Work. The Engineer shall be the sole judge of such defects, imperfections, or damages and the Contractor shall be liable to the Town for failure to correct the same as provided herein.

7.03 Progress Payments

7.03.1. The Engineer shall make a monthly estimate of the total amount of the Work done for each month Work is performed under the Contract and shall prepare a report for approval by the Town. The Town will pay to Contractor the estimated value from the Engineer's report. The Town shall retain five percent (5%) of such estimated value as retainage and shall also retain from said estimates an amount sufficient to cover claims which it may have against the Contractor and claims filed pursuant to Chapter 149, Section 29 and Chapter 30, Section 39A and F of the General Laws. No such estimates or payment shall be required to be made when, in the Engineer's judgment, the Work is not proceeding in accordance with the provisions of the Contract, or when in the Engineer's judgment the total value of the Work done since the last estimate is less than \$1,000.00.

7.03.2. Upon presentation by the Contractor of certified copies of paid invoices, the Town may include in the estimated value, advance payments for acceptable reinforcing steel, structural steel, stone, piles, culvert pipe or other non-perishable materials purchased expressly for the Work and delivered on the Work or in approved storage places at the Site, but which materials are not considered as erected or complete in place under the items of the Contract, and for which partial payment as specified above would not be made until such materials and items were erected or complete in place. Deductions at rates and in amounts, which are equal to the payments, will be made from estimates as the materials are incorporated in the Work. Payment for the materials, as aforesaid, shall not in itself constitute acceptance and any materials which do not conform to the specifications for same shall be rejected in accordance with the stipulation of Subsection 4.03.

7.03.3. For any item for which the progress payment is made on a lump sum basis, (except lump sum Bridge Structures) and for which payment may be allowed if the Contractor requests partial payment on such an item, the Contractor shall submit for approval by the Engineer, a schedule of the quantities and unit prices for the major components of the item. Each component part shall be considered as including all its concomitance so that the total cost listed for the components is the contract cost for the item. The approval of the schedule by the Engineer shall not be considered as a guarantee to the Contractor that the quantities shown on the schedule are the approximate quantities actually included in the lump sum item. The schedule is only for the purpose of estimating progress payments, and it shall not affect the Contract terms in any way.

7.03.4. The Contractor will be required to certify, in writing, that the Work for which the Contractor is being paid on the estimate in question has in fact been done.

7.04 Final Acceptance and Final Payment

7.04.1. When in the opinion of the Town Engineer, the Work has been Substantially Complete and final acceptance has been given by the Town, the Town shall inform the Contractor in writing of the date of such acceptance.

7.04.2. The Engineer shall, as soon as a practicable after acceptance of the Work as Substantially Complete, make final estimate of the amount of Work done thereunder and the value of such Work. Within 65 days from and after the date the Work has been accepted by the Town, the Town shall forward to the Contractor a copy of the final estimate or semifinal estimate as provided in Chapter 30, Section 390 of the General Laws, together with an agreement form for acceptance ("Agreement Form"). After the Agreement Form has been executed by the Contractor and by the Town, final payment of the sum due to Contractor as estimated by the Town will be made after deducting therefrom all previous payments and all amounts to be retained as provided herein. All prior partial estimates and progress payments shall be subject to correction in the final estimate and final payment. If within six months from the date the final estimate is forwarded to the Contractor, the Contractor has not filed a valid (as determined by the Engineer) written reason(s) for not accepting the final estimate, the final estimate will be considered acceptable to the Contractor and final payment of the sum due to Contractor as estimated shall be made.

7.04.3. The acceptance by the Contractor of the final payment shall operate as and shall be a release to the Town and every board, committee, commission, agent and employee thereof, from all claims by the Contractor for anything done or furnished for or relating to the Work or for any act or neglect of the Town or of any person relating to or affecting the Work.

ARTICLE 8
DISPUTE RESOLUTION

In the event of a dispute involving the interpretation of this Agreement or the Work performed thereunder between Owner and Contractor, Owner and Contractor agree to make a good-faith effort to negotiate a settlement of such dispute. In the event the dispute remains unsettled, Owner and Contractor agree to mediate the dispute according to the Rules of Mediation of the American Arbitration Association currently in effect. The parties agree to share the Mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located unless another location is mutually agreed upon.

ARTICLE 9

EQUAL EMPLOYMENT OPPORTUNITY AND AFFIRMATIVE ACTION

EQUAL EMPLOYMENT OPPORTUNITY AND AFFIRMATIVE ACTION (Statutory reference: M.G.L. c. 151B; Executive Orders No. 74, No. 116, and No. 246) The provisions of this Article 9 are intended to comply with the Commonwealth's Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program, referred to in Executive Order No. 116 and administered by the Massachusetts Commission Against Discrimination.

9.01 Definitions

For purposes of this contract, "minority" refers to Asian-Americans, Blacks, Spanish Surnamed Americans, North American Indians, and Cape Verdeans. "Commission" refers to the Massachusetts Commission Against Discrimination.

9.02 Non-Discrimination and Affirmative Action Requirements.

During the performance of their contract, the Contractor and all of (their) Subcontractors (hereinafter collectively referred to as the Contractor), for themself, their assignees, and successors in interest, agree as follows:

9.03 In connection with the performance of Work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age or sex. The aforesaid provision shall include, but not be limited to, the following: employment upgrading, demotion, or transfer; recruitment advertising; recruitment layoff; termination; rates of pay or other forms of compensation; conditions or privileges of employment; and selection for apprenticeship. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Commission setting forth the provisions of the Fair Employment Practices Law of the Commonwealth.

9.04 In connection with the performance of work under this contract, the Contractor shall undertake in good faith affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age or sex, and to eliminate and remedy any effects of such discrimination in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, age, or sex. A purpose of this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future Commonwealth public construction projects.

9.05 As part of their obligation of remedial action under the foregoing Subparagraph 16.2.2, the Contractor shall maintain on this project a not less than 7.4% percent ratio of minority employee man hours to total man hours in each job category including but not limited to bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers, and those "classes of work" enumerated in M.G.L. c. 149, §44F.

9.06 In the hiring of minority journeymen, apprentices, trainees and advanced trainees, the Contractor shall rely on referrals from a multi-employer affirmative action program approved by the Commission, traditional referral methods utilized by the construction industry, and referrals from agencies, not more than three in number at any one time, designated by the Liaison Committee (described in Subparagraph 9.07 below) or the Commission.

9.07 At the discretion of the Commission there may be established for the life of this contract a body to be known as the Liaison Committee. The Liaison Committee shall be composed of one representative each from the agency or agencies administering this project, hereinafter called the administering agency, the Commission and such other representatives as may be designated by the Commission in conjunction with the administering agency.

9.08 The Contractor (or their agent, if any, designated by them as the on-site equal employment opportunity officer) shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.

9.09 The Contractor shall prepare projected manning tables on a quarterly basis. These shall be broken down into projections, by week, of workers required in each trade. Copies shall be furnished one week in advance of the commencement of the period covered, and also when updated, to the Commission and Liaison Committee.

9.10 Records of employment referral orders, prepared by the Contractor, shall be made available to the Commission and to the Liaison Committee on request.

9.11 The Contractor shall prepare weekly reports in a form approval by the Commission of hours worked in each trade by each employee, identified as minority or non-minority. Copies of these shall be provided at the end of each such week to the Commission and to the Liaison Committee.

9.12 If the Contractor shall use any subcontractor on any work performed under this contract, he shall take affirmative action to negotiate with qualified minority subcontractors. This affirmative action shall cover both pre-bid and post-bid periods. It shall include notification to the Office of Minority Business Assistance (within the Executive Office of Communities and Development) or its designee, while bids are in preparation, of all products, work or services for which the Contractor intends to negotiate bids.

9.13 In the employment of journeymen, apprentices, trainees and advanced trainees, the Contractor shall give preference, first, to citizens of the Commonwealth who have served in the armed forces of the United States in time of war and have been honorably discharged therefrom or released from active duty therein, and who are qualified to perform the work to which the employment relates, and, secondly, to citizens of the Commonwealth generally, and, if such cannot be obtained in sufficient numbers, then to citizens of the United States.

9.14 A designee of the Commission and a designee of the Liaison Committee shall each have right of access to the construction site.

9.15 Compliance with Requirements.

The Contractor shall comply with the provisions of Executive Order No.74, as amended by Executive Order No.166, dated May 1, 1975, and of M.G.L. c. 151B, both of which are herein incorporated by reference and made a part of this contract.

9.16 Non-Discrimination.

The Contractor, in the performance of all work after award, and prior to completion of the contract work, will not discriminate on grounds of race, color, religious creed, national origin, age or sex in employment practices, in the selection or retention of Subcontractors, or in the procurement of materials and rentals of equipment.

9.17 Solicitations for Sub-Contracts, and for the Procurement of Materials and Equipment.

In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential Subcontractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under this contract relative to non-discrimination and affirmative action.

9.18 Bidders' Certification Requirement.

The Contractor hereby certifies he shall comply with the minority manpower ratio and specific action steps contained herein. The Contractor shall be required to obtain from each of their subcontractors and submit to the contracting or administering agency prior to the performance of any work under the contract a certification by said Subcontractor, regardless of tier, that it will comply with the minority manpower ratio and specific affirmative action steps contained herein. Such certification shall be provided on forms furnished by the awarding authority or, in the absence thereof, on forms prescribed by the Commission.

9.19 Contractor's Certification.

The Contractor's certification form must be signed by all successful low bidder(s) prior to award by the contracting agency.

9.20 Compliance-Information, Reports and Sanctions.

The Contractor shall provide all information and reports required by the administering agency or the Commission on instructions issued by either of them and shall permit access to its facilities and any books, records, accounts and other sources of information which may be determined by the Commission to affect the employment of personnel. This provision shall apply only to information pertinent to the Commonwealth's supplementary affirmative action contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the administering agency or the Commission as appropriate and shall set forth what efforts he has made to obtain the information.

CONTRACT SIGNATURES

This agreement, made this _____ day of _____ in the year Two-thousand and _____ between the Town of Uxbridge and _____, a corporation, partnership, individual organized under the Laws of _____ and having a usual place of business in _____ in the county of _____, hereinafter called the Contractor.

The Authorized Agent of the Awarding Authority under this contract is _____.

Witnesseth, that the parties to this agreement, each in consideration of the agreements on the part of the other herein contained, do hereby agree to the provisions of the attached and included Contract, the Awarding Authority for itself, and said _____

(Authorized Agent of General Contractor)

for _____ and _____ heirs, executors, administrators, successors, assigns.
(General Contractor)

In witness thereof, the parties to these present have hereunto set their hands and seals.

Authorized Agent of the Awarding Authority:

Steven A. Sette

Signature

Town Manager/Chief Procurement Officer

Title

_____ Date

Certification of Awarding Authority:

The undersigned hereby certifies, pursuant to M.G.L. c. 44, §31C, that an appropriation in the amount of this contract has been made and is available therefore. The undersigned hereby further certifies that an officer or agent of the Awarding Authority has been authorized to execute this contract and to approve all requisitions and change orders.

Signature

Title

Date

Contractor's Authorized Signatory:

Signature

Title

Date

If a corporation, complete below or attach to each signed copy of a contract a notarized copy of vote of corporation authorizing the signatory to sign this contract. If attesting clerk is same as individual executing contract, have signature notarized below.

At a duly authorized meeting at the Board of Directors of the _____
(Name of Corporation)

held on _____ at which all the Directors were present or waived notice, it was

VOTED that, _____
(Name) _____
(Officer)

of this company be and hereby is authorized to execute contract and bonds in the name and behalf of said company, and affix its corporate seal thereto, and such execution of any contract or obligation in this company's name on its behalf by such _____
(Officer)

of the company, shall be valid and binding upon this company.

I hereby certify that I am the Clerk of the _____,
that _____ is the duly elected _____
(Name) _____
(Officer)

of said company, and that the above vote has not been amended or rescinded and remains in full force and effect as of the date of this contract.

A true Copy,

ATTEST _____
(Clerk)

Place of Business _____

(CORPORATE SEAL)

SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ DAY OF 20 _____.

NOTARY PUBLIC

LABOR AND MATERIAL PAYMENT BOND

KNOW NOW ALL MEN BY THESE PRESENTS, that we, _____, as Principal (the "Principal") and _____, a corporation qualified to do business in the Commonwealth of Massachusetts, as Surety, (the "Surety") are held firmly bound unto the Town of Uxbridge, 21 South Main Street, Uxbridge, Massachusetts 01569, as Obligee (the "Obligee"), in the sum of _____ Dollars (\$_____) lawful money of the United States of America, to be paid to the Obligee, for which payment, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has made a contract with the Obligee bearing the date of _____, _____, for _____ Contract No. _____, which Contract is attached hereto and, together with all the Contract Documents referred to therein, is incorporated herein by this reference and is referred to herein as the Contract.

NOW THE CONDITION of this obligation is such that if the Principal shall pay for all labor performed or furnished and for all materials used or employed in the Contract and in any and all duly authorized modifications, alterations, extensions of time, changes or additions to the Contract that may hereafter be made, notice to the Surety of such modifications, alterations, extensions of time, changes or additions being hereby waived, the foregoing to include any other purposes or items set out in, and to be subject to the provisions of Massachusetts General Laws, Chapter 30, Section 39A, and Chapter 149, Section 29, as amended, which provisions are hereby incorporated in this bond, then this obligation shall become null and void; otherwise it shall remain in full force and effect.

IN WITNESS WHEREOF we hereunto set our hands and seals this _____ day of _____, _____.

PRINCIPAL
(SEAL)

SURETY
(SEAL)

By: _____
(TITLE)

By: _____
(TITLE)

Surety Agent: _____

Address: _____

Telephone: _____

PERFORMANCE BOND

KNOW NOW ALL MEN BY THESE PRESENTS, that we, _____, as Principal (the "Principal") and _____, a corporation qualified to do business in the Commonwealth of Massachusetts, as Surety, (the "Surety") are held firmly bound unto the Town of Uxbridge, 21 South Main Street, Uxbridge, Massachusetts 01569, as Obligee (the "Obligee"), in the sum of _____ Dollars (\$_____) lawful money of the United States of America, to be paid to the Obligee, for which payment, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has made a contract with the Obligee bearing the date of _____, _____, for _____ Contract No. _____, which Contract is attached hereto and, together with all the Contract Documents referred to therein, is incorporated herein by this reference and is referred to herein as the Contract.

NOW THE CONDITION of this obligation is such that if the Principal shall well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of said Contract and any extensions thereof that may be granted by the Obligee, with or without notice to the Surety, and during the life of any guaranty or warranty required under the Contract, and shall also well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of any and all duly authorized modifications, alterations, changes or additions to the Contract that may hereafter be made, notice to the Surety of such modifications, alterations, changes or additions being hereby waived, then this obligation shall become null and void; otherwise it shall remain in full force and effect.

WHENEVER the Principal shall be, and declared by the Obligee to be, in default under the Contract, the Surety hereby further agrees that the Surety shall, if requested by the Obligee, promptly complete the Contract in accordance with its terms and conditions.

IN WITNESS WHEREOF we hereunto set our hands and seals this _____ day of _____, _____.

PRINCIPAL
(*SEAL*)

SURETY
(*SEAL*)

By: _____
(TITLE)

By: _____
(TITLE)

Surety Agent: _____

Address: _____

Telephone: _____

OSHA CERTIFICATION

NOTE: The undersigned shall certify that all persons they employ at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration (OSHA) that is at least ten (10) hours in duration at the time the employee begins work and shall furnish documentation of successful completion of said course with the first certified payroll report for each employee.

Name of Bidder

Signature

Date

CONTRACTOR QUALIFICATIONS

The undersigned offers the following information as evidence of their qualifications to perform the work as bid upon according to all requirements of the Plans and Specifications.

1. Have been in business under present business name of

for _____ years.

2. Ever failed to complete any work? _____

3. List one or more recent projects with names of Municipality and Engineer on which you served as general contractor similar to work required for this project:

<u>Project</u>	<u>Engineer</u>	<u>Municipality</u>	<u>Contract Amount</u>	<u>Date Completed</u>
----------------	-----------------	---------------------	------------------------	-----------------------

(1.) _____

(2.) _____

(3.) _____

4. Bank Reference: _____

The undersigned agrees that, if selected as General Contractor, will within ten (10) days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of the general bid and furnish a performance bond and also a labor and materials or payment bond, each of a Surety company qualified to do business under the laws of the Commonwealth and satisfactory to the awarding authority and each in the sum of one hundred percent (100%) of the contract price, the premiums for which are to be paid by the General Contractor and are included in the contract price.

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____

County of _____

_____ being duly sworn, deposes and state that:

- (1) I am (owner, partner, office representative or agent) of _____ the Bidder that has submitted the attached bid;
- (2) I am fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such bid;
- (3) Such bid is genuine and is not a collusive or sham bid;
- (4) Neither the said bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted, or to refrain from bidding in connection with such contract, or has in any manner directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached bid, or of any other Bidder; or to fix any overhead, profit or cost element of the bid price, or the bid price of any other Bidder; or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the TOWN OF UXBRIDGE or any person interested in the proposed Contract;
- (5) The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agent's representatives, owners, employees, or parties in interest, including this affiant.

(Signed)

Title

Subscribed and sworn to before me

this _____ day of _____, 20_____

My commission expires _____

**CERTIFICATION
UNLAWFUL EMPLOYMENT OF ALIENS**

The applicant agrees to abide by all Federal and State Employment laws, including but not limited to, U.S. Code: Title 8 Subsection 1324(a) - Unlawful employment of aliens. They/it acknowledges that the failure to comply with the law will or could result in revocation, suspension or non-renewal of the license/permit or the payment of a surcharge on the license/permit.

Date

Authorized signature licensee/permittee

DOCUMENT 0400
FORM FOR BID

From: _____
(Name of Bidder)

To: Town of Uxbridge (the "Town")

The Undersigned proposes to furnish all labor and materials required for the required for the reconstruction of Douglas Street (Route 16), including the construction of two (2) roundabouts at the Route 16/Route 146 (Worcester-Providence Turnpike) interchanges, in the Town of Uxbridge, Massachusetts, in accordance with the accompanying plans and specifications for the contract unit prices specified below, subject to additions and deductions according to the terms of the specifications.

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
101.	0.1 Acre	Clearing and Grubbing, per Acre _____ dollars and _____ cents (\$_____)	\$_____
120.	4,510 Cubic Yards	Earth Excavation, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
121.	225 Cubic Yards	Class A Rock Excavation, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
141.	85 Cubic Yards	Class A Trench Excavation, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
141.1	260 Cubic Yards	Test Pit for Exploration, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
142.	15 Cubic Yards	Class B Trench Excavation, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
144.	425 Cubic Yards	Class B Rock Excavation, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
145.	7 Each	Drainage Structure Abandoned, per Each _____ dollars and _____ cents (\$_____)	\$_____
146.	9 Each	Drainage Structure Removed, per Each _____ dollars and _____ cents (\$_____)	\$_____
150.1	145 Cubic Yards	Special Borrow, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
151.	3,800 Cubic Yards	Gravel Borrow, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
151.2	70 Cubic Yards	Gravel Borrow for Backfilling Structures and Pipes, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
170.	15,600 Square Yards	Fine Grading and Compacting, per Square Yard _____ dollars and _____ cents (\$_____)	\$_____
201.	36 Each	Catch Basin, per Each _____ dollars and _____ cents (\$_____)	\$_____
202.	9 Each	Manhole, per Each _____ dollars and _____ cents (\$_____)	\$_____
204.	6 Each	Gutter Inlet, per Each _____ dollars and _____ cents (\$_____)	\$_____
220.	118 Each	Drainage Structure Adjusted, per Each _____ dollars and _____ cents (\$_____)	\$_____
220.2	60 Feet	Drainage Structure Rebuilt, per Foot _____ dollars and _____ cents (\$_____)	\$_____
220.3	7 Each	Drainage Structure Change-in-Type, per Each _____ dollars and _____ cents (\$_____)	\$_____
220.6	6 Feet	Sanitary Structure Rebuilt, per Foot _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
220.7	24 Each	Sanitary Structure Adjusted, per Each _____ dollars and _____ cents (\$_____)	\$_____
221.	24 Each	Frame and Cover, per Each _____ dollars and _____ cents (\$_____)	\$_____
222.1	30 Each	Frame and Grate - MassDOT Cascade Type, per Each _____ dollars and _____ cents (\$_____)	\$_____
223.1	33 Each	Frame and Grate (or Cover) Removed and Stacked, per Each _____ dollars and _____ cents (\$_____)	\$_____
227.3	25 Cubic Yards	Removal and Disposal of Drainage Structure Sediment, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
227.31	3,350 Feet	Removal and Disposal of Drainage Pipe Sediment, per Foot _____ dollars and _____ cents (\$_____)	\$_____
238.1	100 Feet	10 Inch Ductile Iron Pipe, per Foot _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
241.12	680 Feet	12 Reinforced Concrete Pipe, per Foot _____ dollars and _____ cents (\$_____)	\$_____
358.	6 Each	Gate Box Adjusted, per Each _____ dollars and _____ cents (\$_____)	\$_____
402.	1,125 Cubic Yards	Dense Graded Crushed Stone for Sub-Base, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
415.2	5,800 Square Yards	Pavement Fine Milling, per Square Yard _____ dollars and _____ cents (\$_____)	\$_____
431.	12 Cubic Yards	High Early Strength Cement Concrete Base Course, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
440.	76,000 Pounds	Calcium Chloride for Roadway Dust Control, per Pound _____ dollars and _____ cents (\$_____)	\$_____
443.	55 MGL	Water for Roadway Dust Control, per Gallon _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
450.23	1,405 Tons	SUPERPAVE Surface Course - 12.5 (SSC - 12.5), per Ton _____ dollars and _____ cents (\$_____)	\$_____
450.32	1,635 Tons	SUPERPAVE Intermediate Course - 19.0 (SIC - 19.0), per Ton _____ dollars and _____ cents (\$_____)	\$_____
450.42	2,410 Tons	SUPERPAVE Base Course - 37.5 (SBC - 37.5), per Ton _____ dollars and _____ cents (\$_____)	\$_____
451	130 Tons	HMA for Patching, per Ton _____ dollars and _____ cents (\$_____)	\$_____
452.	2,050 Gallons	Asphalt Emulsion for Tack Coat, per Gallon _____ dollars and _____ cents (\$_____)	\$_____
453.	9,300 Feet	Hot Mix Asphalt Joint Sealant, per Foot _____ dollars and _____ cents (\$_____)	\$_____
472.	10 Tons	Hot Mix Asphalt for Miscellaneous Work, per Ton _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
482.3	330 Feet	Sawcutting Asphalt Pavement, per Foot _____ dollars and _____ cents (\$_____)	\$_____
504.	3,970 Feet	Granite Curb Type VA4 - Straight, per Foot _____ dollars and _____ cents (\$_____)	\$_____
504.1	1,170 Feet	Granite Curb Type VA4 - Curved, per Foot _____ dollars and _____ cents (\$_____)	\$_____
504.2	11 Each	Granite Curb Type VA4 - Splayed End, per Each _____ dollars and _____ cents (\$_____)	\$_____
507.1	630 Feet	Granite Curb Type M100, per Foot _____ dollars and _____ cents (\$_____)	\$_____
509.	185 Feet	Granite Transition Curb for Pedestrian Curb Ramps - Straight, per Foot _____ dollars and _____ cents (\$_____)	\$_____
509.1	100 Feet	Granite Transition Curb for Pedestrian Curb Ramps - Curved, per Foot _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
514.	11 Each	Granite Curb Inlet - Straight, per Each _____ dollars and _____ cents (\$_____)	\$_____
515.	6 Each	Granite Curb Inlet - Curved, per Each _____ dollars and _____ cents (\$_____)	\$_____
580.	660 Feet	Curb Removed and Reset, per Foot _____ dollars and _____ cents (\$_____)	\$_____
583.	2,480 Feet	Edging Removed and Reset, per Foot _____ dollars and _____ cents (\$_____)	\$_____
593.	5,420 Feet	Edging Removed and Stacked, per Foot _____ dollars and _____ cents (\$_____)	\$_____
620.12	175 Feet	Guardrail, TL-2 (Single Faced), per Foot _____ dollars and _____ cents (\$_____)	\$_____
627.82	2 Each	Guardrail Tangent End Treatment, TL-2, per Each _____ dollars and _____ cents (\$_____)	\$_____
628.22	2 Each	Transition to Rigid Barrier, per Each _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
666.	350 Feet	Chain Link Fence Removed and Reset, per Foot _____ dollars and _____ cents (\$_____)	\$_____
685.	45 Cubic Yard	Stone Masonry Wall in Cement Mortar, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
697.1	45 Each	Silt Sack, per Each _____ dollars and _____ cents (\$_____)	\$_____
701.	410 Square Yard	Cement Concrete Sidewalk, per Square Yard _____ dollars and _____ cents (\$_____)	\$_____
701.2	300 Square Yard	Cement Concrete Pedestrian Curb Ramp, per Square Yard _____ dollars and _____ cents (\$_____)	\$_____
701.31	290 Cubic Yard	Stamped Cement Concrete Truck Apron, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
702.	620 Tons	Hot Mix Asphalt Walk Surface, per Ton _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
715.	1 Each	Rural Mail Box Removed and Reset, per Each _____ dollars and _____ cents (\$_____)	\$_____
740.	18 Month	Engineer's Field Office and Equipment (Type A), per Month _____ dollars and _____ cents (\$_____)	\$_____
748.	1 Lump Sum	Mobilization, per Lump Sum _____ dollars and _____ cents (\$_____)	\$_____
751.	1,540 Cubic Yards	Loam Borrow, per Cubic Yard _____ dollars and _____ cents (\$_____)	\$_____
755.35	1 Lump Sum	Inland Wetland Replication Area, per Lump Sum _____ dollars and _____ cents (\$_____)	\$_____
756.	1 Lump Sum	NPDES Storm Water Pollution Prevention Plan, per Lump Sum _____ dollars and _____ cents (\$_____)	\$_____
765.	11,100 Square Yards	Seeding, per Square Yard _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
767.121	4,300 Feet	Sediment Control Barrier, per Foot _____ dollars and _____ cents (\$_____)	\$_____
804.2	40 Feet	2 Inch Electrical Conduit Type NM - Plastic - (UL), per Foot _____ dollars and _____ cents (\$_____)	\$_____
804.3	1,270 Feet	3 Inch Electrical Conduit Type NM - Plastic - (UL), per Foot _____ dollars and _____ cents (\$_____)	\$_____
806.3	30 Feet	3 Inch Electrical Conduit Type RM - Galvanized Steel, per Foot _____ dollars and _____ cents (\$_____)	\$_____
811.22	16 Each	Electric Handhole – SD2.022, per Each _____ dollars and _____ cents (\$_____)	\$_____
812.991	12 Each	Highway Light Pole Foundation, per Each _____ dollars and _____ cents (\$_____)	\$_____
813.40	1,400 Feet	Wire Type 8 No. 10 Direct Burial, per Foot _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
813.42	3,800 Feet	Wire Type 8 No. 6 Direct Burial, per Foot _____ dollars and _____ cents (\$_____)	\$_____
813.44	270 Feet	Wire Type 8 No. 2 Direct Burial, per Foot _____ dollars and _____ cents (\$_____)	\$_____
813.71	30 Each	Ground Rod 8 Feet Long, per Each _____ dollars and _____ cents (\$_____)	\$_____
813.82	1 Lump Sum	Electric Service Riser Abandoned, per Lump Sum _____ dollars and _____ cents (\$_____)	\$_____
821.11	12 Each	Highway Lighting Pole (Anchor Base) 6 Foot Bracket, per Each _____ dollars and _____ cents (\$_____)	\$_____
823.121	12 Each	Highway Lighting Luminaire - LED, per Each _____ dollars and _____ cents (\$_____)	\$_____
823.61	1 Lump Sum	Highway Lighting Load Center No. 1, per Lump Sum _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
823.62	1 Lump Sum	Highway Lighting Load Center No. 2, per Lump Sum _____ dollars and _____ cents (\$_____)	\$_____
827.21	6 Each	24 Inch Warning Cluster (OM1-1) - Aluminum Panel (Type A), per Each _____ dollars and _____ cents (\$_____)	\$_____
831.	395 Square Feet	Roadside Guide Sign (D6/D8) - Aluminum Panel (Type A), per Square Foot _____ dollars and _____ cents (\$_____)	\$_____
832.	500 Square Feet	Warning - Regulatory and Route Marker - Aluminum Panel (Type A), per Square Foot _____ dollars and _____ cents (\$_____)	\$_____
841.1	14 Each	Supports for Guide Sign (D6 w/ D8 - 5 Inch Tubular Post) - Steel, per Each _____ dollars and _____ cents (\$_____)	\$_____
847.1	107 Each	Sign Support (Not Guide) and Route Marker with 1 Breakaway Post Assembly - Steel, per Each _____ dollars and _____ cents (\$_____)	\$_____
852.	410 Square Feet	Safety Signing for Traffic Management, per Square Foot _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
853.1	5 Each	Portable Breakaway Barricade Type III, per Each _____ dollars and _____ cents (\$_____)	\$_____
853.2	2,350 Feet	Temporary Barrier (TL-2), per Foot _____ dollars and _____ cents (\$_____)	\$_____
853.21	4,900 Feet	Temporary Barrier Removed and Reset, per Foot _____ dollars and _____ cents (\$_____)	\$_____
853.41	10 Each	Temporary Impact Attenuator for Shoulder Incapable of Redirection, per Each _____ dollars and _____ cents (\$_____)	\$_____
853.403	540 Days	Truck Mounted Attenuator, per Day _____ dollars and _____ cents (\$_____)	\$_____
854.016	16,500 Feet	Temporary Paving Markings - 6 inch (Painted), per Foot _____ dollars and _____ cents (\$_____)	\$_____
854.036	560 Feet	Temporary Paving Markings - 6 inch (Removable Tape), per Foot _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
854.1	200 Square Feet	Pavement Marking Removal, per Square Foot _____ dollars and _____ cents (\$_____)	\$_____
856.12	1,080 Days	Portable Changeable Message Sign, per Day _____ dollars and _____ cents (\$_____)	\$_____
859.	140,000 Days	Reflectorized Drum, per Day _____ dollars and _____ cents (\$_____)	\$_____
859.1	2,160 Days	Reflectorized Drums with Sequential Flashing Warning Lights, per Day _____ dollars and _____ cents (\$_____)	\$_____
864.04	225 Square Feet	Pavement Arrows and Legends Reflectorized White (Thermoplastic), per Square Foot _____ dollars and _____ cents (\$_____)	\$_____
866.106	6,520 Feet	6 Inch Reflectorized White Line (Thermoplastic), per Foot _____ dollars and _____ cents (\$_____)	\$_____
866.112	1,220 Feet	12 Inch Reflectorized White Line (Thermoplastic), per Foot _____ dollars and _____ cents (\$_____)	\$_____

Item No.	Estimated Quantity	Brief Description; Unit or Lump Sum price bid in both words and figures	Total Figure
867.106	7,710 Feet	6 Inch Reflectorized Yellow Line (Thermoplastic), per Foot _____ dollars and _____ cents (\$_____)	\$_____
867.112	215 Feet	12 Inch Reflectorized Yellow Line (Thermoplastic), per Foot _____ dollars and _____ cents (\$_____)	\$_____
874.2	11 Each	Traffic Sign Removed and Reset, per Each _____ dollars and _____ cents (\$_____)	\$_____
874.4	33 Each	Traffic Sign Removed and Stacked, per Each _____ dollars and _____ cents (\$_____)	\$_____
999.		Traffic Police (Allowance) THREE HUNDRED EIGHTEEN THOUSAND dollars and ZERO cents (\$318,000)	<u>\$318,000</u>
		TOTAL BID PRICE _____ dollars and _____ cents (\$_____)	\$_____

This bid includes addenda numbered: _____

Time for Completion

The Project shall be constructed in three (3) distinct phases (hereafter referred to as “Phase I”, “Phase II” and “Phase III”) as follows:

Phase I

Phase I construction encompasses the proposed work as shown on the Plans beginning at construction baseline Station 21+00 and the project limit at construction baseline Station 26+50. This work shall be substantially completed, save for final surface course paving and installation of permanent pavement markings, no later than July 30, 2022.

Phase II

Phase II construction encompasses the proposed work as shown on the Plans between construction baseline Stations 13+50 and 21+00. This work shall be substantially completed, save for final surface course paving and installation of permanent pavement markings, no later than September 30, 2022.

Final surface course paving and installation of permanent pavement markings between baseline Stations 13+50 and 26+50 shall be completed no later than October 31, 2022.

Phase III

Phase III construction encompasses the proposed work as shown on the Plans beginning at construction baseline Station 3+00 and extending to construction baseline Station 13+50. This work shall include all final surface course paving and installation of permanent pavement markings between stations 3+00 and 13+50. This work shall be substantially completed no later than August 30, 2023.

Record of Contractor’s Performance

The bidder is requested to state below work of a similar character to that included in this proposal that will enable the Town to judge his experience, skill and business standing.

Bidder's Certifications

1. The undersigned agrees that, if they are selected as general contractor, they will within ten (10) days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the Town, execute a contract in accordance with the terms of this bid and furnish a performance bond and also a labor and materials or payment bond, Each of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the Town and each in the sum of the contract price, the premiums for which are to be paid by the general contractor and are included in the contract price.
2. The undersigned hereby certifies that they are able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that they will comply fully with all laws and regulations applicable to awards made subject to Chapter 30, Section 39M of the Massachusetts General Laws.
3. The undersigned further certifies that they have filed all Massachusetts tax returns and paid all Massachusetts taxes required by law, and has complied with reporting of employees and contractors, and withholding and remitting of child support as provided by M.G.L. Chapter 62C, Section 49A.
4. The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the commonwealth under the provisions of Chapter 29, Section 29F of the General Laws, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.
5. By signing and submitting this Form for Bid, each bidder represents that in regard to the conditions affecting the work to be done and the labor and materials needed, their bid is based on their own investigations and his familiarization with the site in conjunction with the plans and specifications and not on any oral or other representations of any employee, officer, agent or consultant of the Town.

Date: _____

(Print Name of General Bidder)

By: _____
(Signature)

(Print Name of Person Signing Bid and Title)

(Business Address)

(City, State and Zip Code)

Telephone: (_____) - _____

Social Security Number or Federal Identification Number: _____

NOTE: If the bidder is a corporation, indicate state of incorporation and give full names of officers; if a partnership, provide full names and addresses of all partners; and if an individual, provide residential address if different from business address. Use the following spaces:

If a Corporation:

Incorporated in what state: _____

President: _____

Treasurer: _____

Secretary: _____

If a foreign corporation (incorporated or organized under laws other than the laws of the Commonwealth of Massachusetts), is the corporation registered with the Secretary of State of Massachusetts?

Yes _____ No _____

If the bidder is selected for the work referred to above, it is required under M.G.L. c.30 § 39L to furnish to the Town a certificate of the Secretary of State stating that the corporation has complied with M.G.L. c. 181 §§ 3, 5 and the date of such compliance.

If a Partnership: (Name all Partners):

Name of Partner: _____

Residence: _____

If an Individual:

Name: _____

Residence: _____

If an Individual doing business under a firm name:

Name of Firm: _____

Name of Individual: _____

Business Address: _____

Residence: _____

Other form of business organization: _____

The undersigned certifies under penalties of perjury that the undersigned's bid with respect to this contract is in all respects bona fide, fair and made without collusion or fraud with any other person. As used herein the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred and was not debarred when its bid was filed on Wednesday, March 16, 2022, from doing public construction work in the commonwealth under the provisions of section twenty-nine F of Chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

Dated: _____

By: _____, Contractor

Pursuant to M.G.L. c. 62C, s. 49A, I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all state tax returns and paid all state taxes required under law.

Signature of Individual

Social Security # (Voluntary) or Federal Identification Number

Corporate Name

Corporate Officer

* Approval of a contract or other agreement will not be granted unless this certification clause is signed by the applicant.

** Your social security number will be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended. This request is made under the authority of M.G.L. c. 62C s. 49A.

SPECIAL PROVISIONS

ROADWAY AND INTERSECTION IMPROVEMENTS

WORCESTER-PROVIDENCE TURNPIKE (ROUTE 146) & DOUGLAS STREET (ROUTE 16) UXBRIDGE, MASSACHUSETTS

DIVISION I - GENERAL CONDITIONS

SCOPE OF WORK

The work to be done under this Contract consists of furnishing all necessary labor, materials and equipment required for the reconstruction of Douglas Street (Route 16) in the Town of Uxbridge, MA for an approximate length of 2,350 feet, including the construction of two (2) roundabouts; one at the Route 16/Route 146 (Worcester-Providence Turnpike) Northbound Ramps and the other at the Route 16/Route 146 (Worcester-Providence Turnpike) Southbound Ramps. The project shall include other improvements in accordance with the Plans and these Technical Specifications.

The work includes, but is not limited to, excavation, box widening, full-depth construction, drainage system modifications; sidewalk, pedestrian curb ramp and driveway construction, vertical granite curb and sloped granite edging installation; traffic sign and pavement marking installation, street lighting installation, traffic control management during construction, and other improvements in accordance with the Plans and these Special Provisions.

All work under this Contract shall be done in conformance with the *2021 Standard Specifications for Highways and Bridges*, the *Supplemental Specifications* contained in this book, the *2017 Construction Standard Details*, the *Traffic Management Plans and Detail Drawings*, *MassDOT Work Zone Safety Temporary Traffic Control*, the *1990 Standard Drawings for Signs and Supports*; the *2015 Overhead Signal Structure and Foundation Standard Drawings*, the *2009 Manual on Uniform Traffic Control Devices (MUTCD)* with Massachusetts Amendments; the *1968 Standard Drawings for Traffic Signals and Highway Lighting*; *The American Standard for Nursery Stock*; the Plans and these Special Provisions.

Note: All work in this Contract shall conform to all the rules and regulations of the ARCHITECTURAL ACCESS BOARD (521 CMR 1.00 et. seq.).

DEFINITIONS

For the purposes of these Technical Specifications, the following terms shall be defined as follows:

- The "Owner" shall mean the person, municipality or entity identified as such in the Contract (Owner-Contractor Agreement).
- The "Department" and "MassDOT" shall mean the Massachusetts Department of Transportation - Highway Division.
- The "Engineer" or "Resident Engineer" shall mean the person or persons authorized by the Department to oversee the construction of this project. All references in these specifications to "Town" shall mean the Town of Uxbridge

- The "Design Engineer" shall mean MDM Transportation Consultants, Inc., 28 Lord Road, Suite 280, Marlborough, MA 01752; Telephone (508) 303-0370; Fax (508) 303-0371.
- The "County" shall mean Worcester County.
- The "Municipality" shall mean the Town of Uxbridge, the local government in which the Contract work is to be performed.

EXAMINATION OF PLANS AND THE LOCATIONS (Supplementing Subsection 2.03)

The plans for this Contract have been prepared in part from an on the ground instrument field survey, utility company plans and other available sources.

The accuracy and/or precision of this information are not guaranteed to be correct. Accordingly, it is the responsibility of the Contractor to verify all measurements and features of the project area by their own investigation and research.

PROPOSAL GUARANTY REQUIRED (Supplementing Subsection 2.06)

For the purpose of this proposal, the phrase "...authorized to do business in the Commonwealth of Massachusetts..." shall mean licensed by the Division of Insurance for the purpose of writing bid bonds or authorized to do business in the Commonwealth as a surplus lines insurance company by the Division of Insurance for the purpose of writing bid bonds.

GUARANTEE AFTER FINAL ACCEPTANCE (Supplementing Subsection 2.13)

The Contractor shall, at their own expense, replace any work performed under this Contract found to be defective in workmanship, material, or manner of functioning within twelve (12) months from date of final acceptance of all the installations under this Contract.

This requirement does not affect the one-year warranty period on equipment specified in Subsection 815.20 of the Standard Specifications.

CONTRACT BONDS REQUIRED (Supplementing Subsection 3.04)

The Contractor will be required to furnish and pay for a Performance Bond and also a Labor and Material or Payment Bond, each of a surety company qualified to do business under the laws of the Commonwealth of Massachusetts in the sum of one hundred percent (100%) of the Contract Bid Price to perform the work shown on the Plans. Additionally, the Contractor will be required to furnish and pay for a Statutory Lien Bond under Massachusetts General Laws c.254.

PROMPT PAYMENT AND RELEASE OF RETAINAGE TO SUBCONTRACTORS

The Contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of subcontract work not later than ten (10) business days from the receipt of each payment the prime contractor receives from the Owner. Failure to comply with this requirement may result in the withholding of payment to the prime contractor until such time as all payment due under this provision has been received by the subcontractor(s).

The Contractor further agrees to make payment in full, including retainage, to each subcontractor not later than ten (10) business days after the subcontractor has completed all of the work required under its subcontract and said retainage has been released by the Owner.

PERSONAL PROTECTIVE SAFETY EQUIPMENT FOR CONTRACTOR PERSONNEL

The Contractor is responsible to ensure that all personnel, including all subcontractors, working on the project are issued and are wearing all necessary personal protective safety equipment while working within the project limits. This equipment shall include, as a minimum, a hardhat and a safety vest, regardless of the type of work being performed. Other safety equipment shall be added as required to perform the work in which they are engaged and in accordance with all local, state and federal requirements in effect. Safety equipment shall be provided at no additional cost to the Town.

INCREASED OR DECREASED CONTRACT QUANTITIES (Supplementing Subsection 4.06)

This subsection is changed to read as follows:

The Owner reserves the right to increase or decrease the quantity of any particular item of work.

Where the quantity of a unit price pay item in this Contract is an estimated quantity and where the actual quantity of such pay item varies more than twenty-five (25) percent above or below the estimated quantity stated in this Contract, an equitable adjustment in the contract price for that pay item shall be negotiated upon demand of either party. The equitable adjustment shall be strictly based upon any increase or decrease due solely to the variation above one hundred twenty-five (125) percent or below seventy-five (75) percent of the estimated quantity. In this regard, no allowances will be made for loss of anticipated profits suffered or claimed by the Contractor resulting directly or indirectly from such increased or decreased quantities or from unbalanced allocation among the Contract items from any other cause. If the quantity variation is such as to cause an increase in the contract time, the Contractor shall demonstrate the impact by analysis of the currently accepted progress schedule to the satisfaction of the Engineer. If the Engineer determines, through schedule analysis, that the contract time should be adjusted, the Owner, shall within ten (10) days from the receipt of such an analysis, ascertain the facts and put into effect any necessary arrangements for Owner approval of the extension of the contract time as in its judgment the findings justify.

SHOP DRAWING/CATALOG CUT SUBMITTAL PROCEDURE (Supplementing Subsection 5.02)

Shop Drawings/Catalog Cuts

The following procedure shall be followed when making shop drawing submittals for this project:

1. The Contractor shall submit seven (7) sets of shop drawings and catalog cuts directly to the Design Engineer for preliminary review.
2. The Design Engineer will send a written reply, returning two (2) sets to the Prime Contractor within ten (10) working days of receipt of the drawings and catalog cuts.
3. If the Design Engineer's reply indicates rejection or advises corrections or additions to the drawings and catalog cuts, steps 1 and 2 are repeated until the Design Engineer indicates that approval will be given. The approval will be general and shall not relieve the Contractor from their responsibility for adherence to the Contract documents or for any error or omission in the drawing or catalog cuts.

4. The Contractor shall then submit seven (7) sets of shop drawings and catalog cuts to the Design Engineer for approval and distribution by the Design Engineer per the standard operating procedures of the Department.
5. The Contractor shall confirm that every separate document in each set of every submittal shall carry the following identifying information:

<u>Information Required</u>	<u>Example</u>
a. Name of Project:	Roadway & Intersection Improvements Worcester-Providence Turnpike (Route 146) at Douglas Street (Route 16) Uxbridge, MA
b. Identifying item number from proposal, if applicable:	815
c. Locations where material is proposed to be used, if applicable:	Worcester-Providence Turnpike (Route 146) at Douglas Street (Route 16)
d. Name of submitting Contractor:	Jones Engineering
e. Personal signature and title of an authorized official of the Prime Contractor to make shop drawing submittals:	Mike Jones, President
f. Date of signature of submittal:	June 1, 2022

The Contractor shall not receive payment for, nor will he be allowed to install any item or materials, which require shop drawing approval unless he has received written approval for the shop drawing for that item from the Town and the Design Engineer.

The following is a partial list of items and materials that require shop drawing approval. Along with each item is listed certain information which shall be clearly marked on the drawing or submittal.

Required Shop Drawings/Catalog Cut Submittals

- Highway Lighting Equipment and Structures
- Precast Concrete Drainage Structures
- Drainage Pipes
- Drainage Castings
- Vertical Granite Curb, Inlets and Transitions (Straight and Curved)
- Sloped Granite Edging
- Silt Sacks
- Warning and Regulatory Signs
- Telescopic Square Tube Sign Posts (2"x2")
- Stamped Cement Concrete

Within fifteen (15) days after receipt of an approved shop drawing/catalog cut for any item, the Contractor shall provide the Town and Design Engineer written proof that he has ordered such approved materials required on the subject contract and a written confirmation of such order and delivery schedule from the Manufacturer of the item. This delivery schedule shall be appropriate for timely completion of this project.

WORK PERFORMED BY OTHERS

Relocation and/or resetting to new grades of all private utilities, including but not limited to utility poles, made necessary by the prosecution of the Work shall be carried out by the representative private utility companies. The cost to complete said utility work, including all permits and fees, shall be paid for by the Owner. It shall be the responsibility of the Contractor to coordinate the relocation of all private utilities with the respective utility companies on behalf of the Owner. The cost for said utility coordination by the Contractor shall be considered incidental to the work with no additional compensation to be made.

PERMITS AND FEES

The Owner shall be responsible for obtaining approvals for construction from the Town and MassDOT. The Contractor shall be responsible for obtaining all other permits and shall pay any and all fees associated with these permits, except those of National Grid, Verizon and any other company(s) overhead/underground cables affected by the relocation, modification, and/or adjustment of utility poles, manholes or support facilities.

LOCAL PERMITS AND APPROVALS

Work conducted by the Contractor under the Contract shall be conducted in accordance with local permits and approvals obtained by the Owner.

COOPERATION OF THE CONTRACTOR (Supplementing Subsections 5.05 and 5.06)

Agents of various public service agencies, municipal and State Departments and private site Contractors may be entering the work site to remove existing utilities, construct or place new utilities or make alterations to existing utilities.

The Contractor shall perform the work in cooperation with the various agencies in a manner which causes the least interference with the operations of the aforementioned agencies and shall have no claim for delay which may be due to or result from said work of these agents.

TIME OF COMPLETION FOR PHASED CONSTRUCTION

The Project shall be constructed in three (3) distinct phases (hereafter referred to as "Phase I", "Phase II" and "Phase III") as follows:

Phase I

Phase I construction encompasses the proposed work as shown on the Plans beginning at construction baseline Station 21+00 and the project limit at construction baseline Station 26+50. This work shall be substantially completed, save for final surface course paving and installation of permanent pavement markings, no later than July 30, 2022.

Phase II

Phase II construction encompasses the proposed work as shown on the Plans between construction baseline Stations 13+50 and 21+00. This work shall be substantially completed, save for final surface course paving and installation of permanent pavement markings, no later than September 30, 2022.

Final surface course paving and installation of permanent pavement markings between baseline Stations 13+50 and 26+50 shall be completed no later than October 31, 2022.

Phase III

Phase III construction encompasses the proposed work as shown on the Plans beginning at construction baseline Station 3+00 and extending to construction baseline Station 13+50. This work shall include all final surface course paving and installation of permanent pavement markings between stations 3+00 and 13+50. This work shall be substantially completed no later than August 30, 2023.

CONCURRENT WORK BY OTHERS WITHIN PROJECT LIMITS

(Supplementing Subsection 5.06)

Concurrent work may be in progress in the project area by the County, the local municipality, by utility companies, by another Contractor hired by the Owner, or by other Contractors hired by private parties. The Contractor is required to coordinate their activities with these parties.

No additional payments will be allowed for any disruption of work schedule caused by or required coordinating work in this Contract with work to be performed by others, as described above or which may be encountered during the prosecution of the work.

CONSTRUCTION STAKINGS (Supplementing Subsection 5.07)

It shall be the Contractor's responsibility to provide all survey control including establishment of baselines and construction staking for grading, alignment, drainage, etc. to allow for proper prosecution of the proposed work. Control stakes for horizontal and vertical alignment (line and grade) of curbing, berm, catch basins, manholes, hydrants, chain link fence, guardrail, highway lighting equipment (load centers, luminaires, light posts, handholes, etc.), gutter line and centerline grades at 50 foot stations, low points, top and bottom of slope and at other complicated locations shall be provided by the Contractor. The Contractor shall furnish and set at their own expense, all baselines and stakes (such as batter boards, slope stakes, pins, offset stakes, etc.) required for the construction operations and they shall be solely responsible for the accuracy of the line and grade of all features of their work.

The Contractor shall be held responsible for the preservation of all control points, stakes and marks. If any of such stakes or marks are disturbed or destroyed the cost of replacing them shall be at the Contractor's expense.

All survey work will be in accordance with MassDOT standards and done by a licensed professional surveyor registered in Massachusetts. The cost of survey work shall be deemed to be included in the Contract bid price and no additional payment shall be made therefore.

INSPECTION OF WORK (Supplementing Subsection 5.09)

For the purpose of observing work that affects their respective properties, inspectors for the Municipality, public agencies, and the utility companies shall be permitted access to the work, but all official orders and directives to the Contractor will be issued by the Owner.

LAWS TO BE OBSERVED (A. General) (Supplementing Subsection 7.01)

The Contractor shall not, otherwise than as provided by law for the proper discharge of official duty, directly or indirectly, give, offer or promise anything of "substantial value" to any present or former state employee or to any person selected to be such an employee, for or because of any official act performed or to be performed by such an employee or person selected to be such an employee. "Substantial value," as used herein and for purposes of the Massachusetts Conflict of Interest Law, General Law, Chapter 268A, means anything worth fifty dollars (\$50.00) or more. The Contractor shall comply with all other provisions of Chapter 268A as such maybe applicable under the terms of this Contract.

EROSION AND SEDIMENTATION CONTROL (Supplementing Subsection 7.02, Prevention of Water Pollution Sanitary Provisions)

This work shall consist of temporary control measures as directed by the Engineer during the life of the Contract to control erosion and sedimentation.

The Contractor shall take all necessary measures to prevent the erosion of all stockpiled material.

All erosion and sedimentation control features must be installed and in place prior to the start of any construction activity.

The erosion and sedimentation control features installed by the Contractor shall be satisfactorily maintained by the Contractor until they are ordered removed by the Engineer.

In the event of a conflict between these specifications and existing laws, rules, or regulations, the more restrictive requirements shall apply.

In the event that temporary erosion and sedimentation controls are required due to the Contractor's negligence or carelessness, and such additional measures are ordered by the Engineer, the work shall be performed by the Contractor at their own expense.

Repeated failures by the Contractor to control erosion and/or siltation shall be cause for the Engineer to employ outside assistance or to use their own forces to provide the necessary corrective measures. The cost of such assistance plus project engineering costs will be charged to the Contractor and appropriate deductions made from the Contractor's total Contract Bid Price.

OVERLOADED TRUCKS (Supplementing Subsection 7.03)

THE TOWN WILL NOT ACCEPT ANY MATERIALS DELIVERED TO ANY PROJECT IN MOTOR VEHICLES OR SEMI-TRAILER UNITS THAT EXCEED THE LEGAL MAXIMUM GROSS WEIGHT ALLOWED FOR THE PARTICULAR CLASS, AS SPECIFIED IN SECTION 19A OF CHAPTER 90 OF THE GENERAL LAWS OF MASSACHUSETTS.

THE PROVISIONS OF SUBSECTION 7.03 OF THE STANDARD SPECIFICATIONS SHALL STILL APPLY.

STEEL PLATES IN CONSTRUCTION ZONES (Supplementing Subsection 7.09)

At the end of each working day where trenches in areas of public travel are covered with steel plates, each edge of such plates shall either be beveled or protected by a slope of three (3'-0") feet horizontally to one (1") inch vertically. Any hot mix asphalt material, except base course, may be used to construct the temporary ramps. The cost of necessary hot mix asphalt patching materials, steel plates and their maintenance and removal, will be considered incidental to the work with no additional compensation to be made therefor.

PATENTED DEVICES, MATERIALS AND PROCESSES (Amending Subsection 7.06)

Replace subsection 7.06 with the following:

It is mutually understood and agreed that, without exception, contract prices are to include all royalties and costs arising from patents, trademarks and copyrights in any way involved in the work. It is the intent that whenever the Contractor is required or desires to use any design, device, material or process covered by letters patent or copyright, the right for such use shall be provided for by suitable legal agreement with the patentee or owners. A copy of this agreement shall be filed with the Engineer; however, whether or not such agreement is made or filed as noted, the Contractor and the surety in all cases shall indemnify and save harmless the Party of the First Part from any and all claims for infringement by reason of the use of any such patented design, device, material or process to be involved under the Contract. They shall indemnify the Party of the First Part for any cost, expenses and damages which it may be obliged to pay, by reason of any such infringement, at any time during the prosecution or after the completion of the work.

PUBLIC SAFETY AND CONVENIENCE (Supplementing Subsection 7.09)

The Contractor's attention is directed to their responsibility to maintain safe conditions for pedestrians and Contractor's personnel, as well as vehicular traffic. This responsibility shall be the Contractor's, regardless of their compliance with these Technical Specifications concerning Prosecution of the Work, Maintenance of Traffic, Construction Detouring and Phasing.

The Contractor's attention is also directed to the fact that the work on this project is to be performed on streets that are used by pedestrians as well as vehicles. They shall furnish, install, maintain, and move all warning devices, barricades, signs, slow-moving vehicle emblems, bridging materials, special apparel, and other safety measures and controls deemed necessary by the Engineer for the protection of motorists, pedestrians, and their own personnel. All automotive equipment, not protected by traffic cones or plastic drums, that is working on a public way under this project, shall have one amber flashing warning light mounted on the cab roof or on the highest practical point of the machinery visible to both oncoming and overtaking vehicles, at least 32 candlepower and 50-60 flashes per minute. This light shall be in operation while the equipment is working or traveling in the work area at a speed of less than 25 mph, and a slow moving vehicle emblem shall also be displayed.

Construction equipment shall not be parked within any traveled way unless said equipment is adequately lighted and protected by safety devices and vehicular traffic is appropriately detoured. Appropriate MUTCD requirements shall apply.

The Contractor shall be responsible for the maintenance of flow in all gutters, water pipes, drains and other pipes affected by the work. There shall be no diversion, flooding, or other flow that will cause hindrance to this or other work, or cause nuisance or hazard of any kind.

WORK IN THE IMMEDIATE VICINITY OF UNDERGROUND STRUCTURES AND UTILITY POLES

For overhead connections, the Electric Company servicing the area will make the connection from the top of the riser on the utility pole to the power source. The Contractor shall supply all labor, materials and equipment to install the service connection, complete in place and in accordance with the Electric Company procedures, from the controller to and including the riser with enough wire coiled above the riser to permit the Electric Company servicing the area to make the final connection.

For underground connections, the Electric Company servicing the area will perform the actual wiring of the service connections from its power source to the sweep at the local controllers, but all sweeps, ducts, entrance holes into manholes, patching and all other necessary labor, materials and equipment required to install the electric service, complete in place, shall be furnished by the Contractor.

The Contractor shall pay all costs associated by the Electric Company for their services rendered for the connection of overhead and underground service connections.

No work is to be performed in the immediate vicinity of the Electric Company manholes or utility poles, or the local Telephone Company manholes or utility poles or conduit system without prior notice (at least 48 hours) to the affected company.

Before starting any work at existing manholes, the Contractor shall test for gas and blow out the manholes.

NOTICE TO OWNERS OF UTILITIES (Supplementing Subsection 7.13)

Written notice shall be given by the Contractor to all public service corporations or municipal and state officials, owning or having charge of publicly or privately owned utilities, of the Contractor's intention to commence operations affecting such utilities at least one (1) week in advance of the commencement of such operations, and the Contractor shall, at that time, file a copy of such notice with the Engineer.

Before the Contractor begins any work or operations that might damage any subsurface structures, he shall carefully locate all such structures and conduct their operations so as to avoid any damage to them.

It shall be the Contractor's responsibility to provide adequate notice to all public and private utilities that may be affected by the construction of the Project. In addition, the Contractor shall contact the electric utility servicing the affected area prior to the start of work to obtain any and all construction requirements and standards as deemed necessary by the utility for prosecution of the work. The Contractor shall be responsible for the coordination of all utilities to be adjusted, relocated and/or removed.

The following are the names and addresses of the utilities presumed to be affected; however, the completeness of the list is not guaranteed.

Uxbridge Department of Public Works
147 Hecla Street
Uxbridge, MA 01569
Attn: Benn Sherman, P.E., Director
(508) 578-8616
bsherman@uxbridge-ma.gov

Uxbridge DPW - Wastewater Division
80 River Road
Uxbridge, MA 01569
Attn: Chris Welch, Supervisor
(508) 278-2887
cwelch@uxbridge-ma.gov

Uxbridge DPW - Water Division
105 Blackstone Street
Uxbridge, MA 01569
Attn: Jim Boliver, Supervisor
(508) 278-8631
jboliver@uxbridge-ma.gov

Uxbridge Police Department
275 Douglas Street
Uxbridge, MA 01569
Attn: Marc Montminy, Chief
(508) 278-7755
Mmontminy@uxbridge-ma.gov

Eversource (Gas)
157 Cordaville Road, 3113
Southborough, MA 01772
Attn: Jeffrey Evans-Mongeon
(508) 305-6970
Jeffrey.Evans-Mongeon@eversource.com

Charter Communications (Cable)
301 Barber Avenue
Worcester, MA 01606
Attn: Rick Molnar
Telephone: (978) 848-5163
Rick.Molnar@charter.com

Uxbridge Fire Department
31 South Main Street
Uxbridge, MA 01569
Attn: Tom Dion, Chief
(508) 278-2787
tdion@uxbridge-ma.gov

National Grid (Electric)
1250 Brayton Point Road
Somerset, MA 02725
Attn: Jack Saraiva
(508) 962-6298
joaquim.saraiva@nationalgrid.com

Verizon (Telephone)
385 Myles Standish Boulevard
Taunton, MA 03780
Attn: Karen Mealey
(774) 409-3160
karen.m.mealey@verizon.com

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for performing all the work involved in protecting or repairing property as specified in this section shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

The Contractor shall be required to furnish all labor, materials, and equipment necessary to protect underground structures and electrical vaults within the project site from construction debris and water penetration. When underground structures or electrical vault roofs are excavated, the Contractor shall be responsible for maintaining security of these structures or electrical vaults against unauthorized access. The Contractor shall be responsible for leaving the structures and vaults in a state of water tightness equal to that existing at the commencement of the Contract.

SHEETING AND BRACING

The Contractor shall furnish, place, and remove all sheeting and bracing required to support the sides of all trenches or other excavations for this project. The Contractor shall be solely responsible for the safety of the workmen and the adjacent facilities from danger of caving and sliding and all work to be done shall be in strict accordance with the Department of Labor, Occupational Safety and Health Administration regulations and suggested practices for construction excavation and/or other applicable codes and regulations. Special precautions shall be taken to guard against any damage to or settlement of pavements, buildings, walls, pipes, ducts or other structures and facilities, which are adjacent to the project area.

The cost of providing and removing, sheeting, shoring, and bracing under this Contract will be the responsibility of the Contractor and no additional compensation will be allowed therefor.

PROTECTION OF UNDERGROUND FACILITIES (Supplementing Subsection 7.13)

The Contractor's attention is directed to the necessity of making their own investigation in order to ensure that no damage to existing structures, drainage lines, traffic signal conduits, etc., will occur.

The Contractor shall notify the Massachusetts "DIG SAFE" call center via telephone at 1-888-344-7233 and procure a DIG SAFE number for each location prior to disturbing the existing ground in any way.

The Contractor shall notify Dig Safe 72 hours prior to start of construction.

PROTECTION OF UTILITIES AND PROPERTY (Supplementing Subsection 7.13)

The Contractor, in constructing or installing facilities alongside or near sanitary sewers, storm drains, water or gas pipes, electric or telephone conduits, poles, sidewalks, walls or other structures, shall, at their expense, sustain them securely in place, cooperating with the officers and agents of the various utility companies and municipal departments which control them, so that the services of these structures shall be maintained. He shall also be responsible for the repair or replacement, at their own expense, of any damage to such structures caused by their acts or neglect and shall leave them in the same condition as they existed prior to the commencement of work. In case of damage to utilities, the Contractor shall promptly notify the owner and shall, if requested by the Engineer, furnish laborers to work temporarily under the owner's direction in providing access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by the Town of Uxbridge or by the utility company which suffers the loss. The cost of such repairs shall be borne by the Contractor, without compensation therefor.

If, as the work progresses, it is found that any of the utility structures are so placed as to render it impracticable, in the judgment of the Engineer, to do the work called for under this Contract, the Contractor shall protect and maintain the services in such utilities and structures and the Department will, as soon thereafter as it reasonably can, cause the position of the utilities to be changed or take such other action as it deems suitable and proper.

If live service connections are to be interrupted by excavation of any kind, the Contractor shall not break the service until new services are provided. Abandoned services shall also be plugged off or otherwise made secure by the utility company involved.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in protecting or repairing property as specified in this section shall be considered as included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefor.

The Contractor will cooperate fully with all utility companies private or public and will notify all such companies at least twenty-four hours prior to excavating in the vicinity of any utility. It is understood that the Contractor has considered in their bid the existence of the various utilities and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by him due to any interference by said utilities.

For overhead connections, the serving utility will make the connection from the top of the riser on the utility pole to the power source. The Contractor shall supply all labor, materials and equipment to install the service connection, complete in place and in accordance with Nation Grid procedures, from the controller to and including the riser. Enough wire shall be coiled above the riser to allow the serving utility to make the final connection.

The Contractor shall pay the serving utility for their services rendered for the connection of the overhead service connections.

PROPERTY BOUNDS (Supplementing Subsection 7.13)

The Contractor shall exercise due care when working around all layout bounds that are to remain. Should any damage to a bound result from the actions of the Contractor, it shall be replaced and/or realigned by the Contractor as directed by the Engineer. No further compensation will be due the Contractor for the materials and labor required to reestablish the bound in its proper orientation. The Contractor shall retain a Massachusetts registered land surveyor to reestablish any damaged bounds.

JOINTS

All joints between proposed pavement and existing pavement to remain shall be coated with a hot poured rubberized asphalt sealant meeting the requirements of Federal Specification Number SS-S-1401.

DRAINAGE (Supplementing Subsection 7.13)

It shall be the Contractor's responsibility to constantly maintain proper drainage in the areas under construction until the final system is put into use. Existing drainage shall not be taken out of service without prior written notice to the Town of Uxbridge Department of Public Works.

If the roadway is to be left at base course over the winter months, only catch basins at low points and those structures identified by the Engineer shall be adjusted to base course grade. Further adjustment of these structures to final grade shall be paid for under Item 220.

The castings of all structures which are required to be set or reset under this project shall not be set complete in place to the final grade until after the hot mix asphalt binder course has been completed and top course is scheduled to be completed with two (2) weeks.

Before placement of top course material begins, utility structures shall be adjusted to final grade. Utility structures shall be exposed above binder grade for not more than two (2) weeks before placement of top course material will be required. This is a major inconvenience to the public; therefore, no work on this project shall be allowed to proceed until top course placement has begun unless otherwise directed by the Engineer.

All new pipes and structures within the limits of this Contract shall be left in a clean and operable condition at the completion of the work.

All the above work shall be included under the relevant drainage items, without additional compensation therefor. Any adjustments made to new drainage structures will be included under the contract unit bid price for the respective structures.

WATER SYSTEM CASTINGS

The Contract shall include in the Contract Lump Sum Bid Price the cost of adjusting to finished grade all existing water gate and service boxes within the limits of the project, whether or not the structures are visible prior to commencement of work. Concrete collars shall be provided for all water gates and service boxes to be adjusted in accordance with MassDOT Construction Standard Drawing 202.9.0.

DEWATERING

The Contractor's attention is directed to construction operations that may occur in wetland areas, streams, brooks and/or surface or subsurface areas where surface water or groundwater may exist or accumulate. The Contractor shall include under each pertinent item all labor, materials and equipment necessary to dewater the affected areas for proper installation of the respective items. No additional compensation will be made for dewatering but shall be considered incidental and included in the price for each respective item.

BACKFILL AND COMPACTION FOR DRAINAGE STRUCTURES AND PIPES

No backfill shall be placed on or against drainage structures, pipes, or other masonry, until permitted by the Engineer. All backfill shall consist of suitable materials uniformly distributed in six (6") inch layers and thoroughly compacted to 95 percent of the maximum dry density of the backfill material in accordance with ASTM D1557 Modified Proctor. When suitable backfilling materials cannot be obtained from excavation, the material shall consist of satisfactory borrow. Mechanical tampers shall be used in compacting backfill for drainage trenches, and in hard to reach areas around drainage structures and masonry.

Drainage Pipes:

Backfill below the pipe haunches shall be placed in six (6") inch layers (loose measurement) and compacted simultaneously on both sides of the pipe with railroad tampers or approved mechanical rammers which shall not come in contact with the pipe. Backfill above the haunches of the pipe shall be placed in six (6") inch layers (loose measurement); each layer of material shall be spread on the entire width of the trench and leveled off by approved equipment. Each six (6") inch layer of backfill material shall be compacted to 95 percent of the maximum dry density of the backfill material in accordance with ASTM D1557 Modified Proctor and shall be moist prior to and during compaction. This procedure for backfilling drainage pipes shall be continued up to the top of the roadway subbase.

Drainage Structures:

Backfill below and around the drainage structures shall be placed in six (6") inch layers (loose measurement), leveled off by approved equipment and compacted with railroad tampers or approved mechanical ramblers. Each layer of backfill material shall be spread evenly across the entire width between the excavation sidewalls and drainage structure. Each six (6") inch layer of backfill material shall be compacted to 95 percent of the maximum dry density of the backfill material in accordance with ASTM D1557 Modified Proctor and shall be moist prior to and during compaction. This procedure for backfilling drainage structures shall be continued up from the bottom of the drainage structure excavation to the top of the roadway subbase.

Backfill materials shall be compacted to not less than 95 percent of the maximum dry density of the backfill material in accordance with ASTM D1557 Modified Proctor. The Contractor shall, without additional compensation, employ whatever measures are necessary to adjust the natural water content of the suitable backfill material to permit the placement and compaction as herein specified. The Town, during the progress of the work, will make tests as required, to determine the in-place density of the backfill material in and around drainage structures and pipe. No additional compensation will be made for compaction as specified herein but shall be considered incidental and included in the price for each respective item. Compaction testing shall be paid for by the Town.

BRICKS FOR DRAINAGE APPLICATION

Clay brick conforming to Section M4.05.2 of the Standard Specifications shall be used to adjust all manholes and catch basin frames and grates or covers to grade. In transitioned areas, adjustment of castings shall be made in one operation under their respective items.

DRAINAGE & CASTINGS FOR STRUCTURES

Concrete collars around structures located within the roadway shall be constructed in accordance with MassDOT Construction Standard Drawing 202.9.0.

The Contractor shall maintain the drainage system in the Contract areas to provide continual drainage of the travel ways and construction area.

The Contractor shall be responsible for establishing all invert elevations and shall submit them to the Engineer prior to ordering any structures. All drainage castings in new pavement areas shall be installed at base or intermediate course grade, as directed by the Engineer, and reset to proposed finished surface grade prior to placement of the pavement surface course.

All proposed drainage structures within the limits of the project shall be cleaned of all debris after all paving is completed and prior to the acceptance of the project as complete.

All pipes and structures installed as part of this Contract shall be left in a clean and operable condition at the completion of the work. All existing pipes to be abandoned shall be plugged with brick masonry not less than 8 inches in thickness in conformance with the Standard Specifications, Section 201.62. No separate payment will be made for the maintenance of the existing drainage system or for plugging of pipes, but all costs in connection therewith shall be incidental to the Contract and no additional compensation shall be allowed therefor.

It shall also be a requirement of this Contract that all drainage structures in the traveled way which are deemed hazardous by the Engineer shall be covered with temporary steel plates (or an approved equal) capable of withstanding a 20 ton load with impact. The plates shall be removed prior to final paving.

PAVEMENT SAWCUTS

Sawcuts shall be made in existing pavement at limits of full depth construction, pavement reconstruction, box widening, around existing castings, in areas shown on the Plans, and as directed by the Engineer.

Prior to installation of any pipes, structures, gates boxes, fittings or hydrants in existing pavement areas to be milled and resurfaced or permanently patched, the pavement shall be sawcut as shown on the plans and/or as directed by the Engineer. The pavement shall be sawcut through the full thickness of the pavement to eliminate any lifting of adjacent pavement that will be retained during excavation of the trench. All edges of excavations made in existing pavement shall be squared by sawcutting with power-driven tools to provide a neat, clean edge for joining pavement patches to existing pavement. Ragged, uneven edges shall not be accepted. Areas that have been broken or undetermined shall be edged neatly with a minimum disturbance to remaining pavement.

EXCAVATION AND TRENCH SAFETY PERMITS

In accordance with MGL Chapter 82A and 520 CMR 14.00 et seq. (as amended), the Contractor shall be responsible for obtaining all required permits associated with trench excavation and operations. Permit(s) shall be obtained from the appropriately designated and authorized person within the City, Town or public agency where the excavation work is to be performed. The Contractor shall responsible all fees associated with said permit(s).

WORK SCHEDULE (Supplementing Subsection 8.02)

It is anticipated the majority of work will be completed during normal daytime working hours, from 9:00 AM to 3:30 PM Monday through Friday, however, some tasks will require nighttime, weekend and/or weekend night work and requires the permission of the MassDOT District Operations Engineer. Such tasks include, but are not limited to, utility relocations, milling, resurfacing, final paving operations and installation of pavement markings.

The Contractor shall incorporate costs associated with these night and weekend work activities in their bid.

Work will not be allowed on public ways on the day before or the day after a long weekend that involves a Holiday without the approval of the MassDOT District Operations Engineer. Hours of work on public ways shall be limited to 9:00 AM and 3:30 PM, unless approval is granted by the District Operations Engineer for extended work hours.

No hot mix asphalt pavement shall be placed on public ways from November 15th to April 15th of the following year. Permits to be issued by the Town may further limit the construction period.

When the air temperature falls below 50°F, extra precaution shall be taken in drying the aggregates, controlling the temperatures of the materials and compacting the mixtures. No mixture shall be placed unless the breakdown and intermediate rolling can be completed by the time the material has cooled to 170°F and provided the density of the compacted pavement attains at least 95% of the laboratory compacted density.

HOLIDAY WORK RESTRICTIONS

(Supplementing Subsection 7.09)

The District Highway Director (DHD) may authorize work to continue during these specified time periods if it is determined by the District that the work will not negatively impact the traveling public. DHD may allow work in those areas on a case-by-case basis and where work is behind barrier and will not impact traffic.

Below are the holiday work restrictions:

New Year's Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day. No work on local roadways on the holiday without permission by the DHD and the local police chief.

Martin Luther King's Birthday (Federal Holiday)

No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

President's Day (Federal Holiday)

No work restrictions due to traffic concerns, however work on local roadways requires permission by the DHD and local police chief.

Evacuation Day (Suffolk County State Holiday)

No work restrictions due to traffic concerns.

Patriot's Day (State Holiday)

Work restrictions will be in place for Districts 3 and 6 along the entire Boston Marathon route and any other locations that the DHD in those districts determine are warranted so as to not to impact the marathon. All other districts work restrictions will be as per DHD.

Mother's Day

No work on Western Turnpike and Metropolitan Highway System from 5:00 AM on the Friday before, until the normal start of business on the following day.

Memorial Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the Friday before, until the normal start of business on the following day.

Bunker Hill Day (Suffolk County State Holiday)

No work restrictions due to traffic concerns.

Independence Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day. No work on local roadways on the holiday without permission by the DHD and the local police chief.

Labor Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the Friday before, until the normal start of business on the following day.

Columbus Day (Federal Holiday)

No work on major arterials from 5:00 AM on the Friday before, until the normal start of business on the following day

Veterans' Day (Federal Holiday)

No work restrictions due to traffic concerns.

Thanksgiving Day (Federal Holiday)

No work on major arterials from 5:00 AM two days before until the normal start of business on the following Monday.

Christmas Day (Federal Holiday)

No work on major arterial roadways from 5:00 AM on the day before until the normal start of business on the next subsequent business day.

SUBLETTING OR ASSIGNMENT OF CONTRACTS (Supplementing Subsection 8.01)

The Contractor and all subcontractors performing work within the limits of all public ways, whether state or locally-owned, must be pre-qualified in accordance with 720 CMR 5.00 "Prequalification of Contractors".

ENVIRONMENTAL CONTROLS

All construction equipment shall be fitted with suitable muffling devices so that the noise from construction operation shall be properly controlled.

The Contractor shall control all dirt, dust erosion and other related construction emissions from the project to the satisfaction of the Engineer.

DISPOSAL OF SURPLUS EXCAVATED MATERIALS

All surplus materials resulting from excavation including rock and ledge, and not needed for use on the project and not directed to be stacked as determined by the Engineer shall become the property of the Contractor and shall be disposed of by the Contractor outside and away from the limits of the project subject to the regulations and requirements of local authorities governing the disposal of such materials. The cost of this work shall be included in the Contract Lump Sum Bid Price.

COMMUNICATIONS

During paving operations, the Contractor shall provide continuous radio communication between the plant and the project to ensure immediate response due to breakdowns, emergencies such as accidents, and to ensure the best quality results possible.

SCHEDULE OF OPERATIONS (Supplementing Subsection 8.02)

The first paragraph is revised to read:

The low bidder shall, for the convenience of the Town, submit to the Engineer, three (3) copies of a schedule of operations (with values) within seven (7) days after the opening of bids. This seven (7) day period may be changed or waived with the approval of the Town. The schedule shall show the proposed methods of construction, sequence of work, proposed safety measures, and the time the Contractor proposes to complete the various items of work within the time specified in the Contract.

The safety devices and advance signing will be paid for under the pertinent items of Section 850. The Traffic Management Plan details suggested staging with pertinent traffic controls. The Contractor may, however, submit in writing, alternate traffic control plans for the approval of the Engineer.

PROPERTY ACCESS (Supplementing Subsections 8.02 and 8.06)

The Contractor should note that the work is located in a predominantly residential section of the affected municipalities. As such, the Contractor shall provide and maintain access at all times to all properties abutting the work. Safe and ready means of ingress and egress to all residential properties and business in the project area, both day and night, shall be provided for the duration of the project.

MATERIALS REMOVED AND STACKED (Supplementing Subsections 580.64, 630.63)

Except for signs owned by the Town of Uxbridge, all materials removed within the roadway shall be delivered to the nearest approved MassDOT maintenance depot or as directed by the Department or Engineer. If the Engineer or the Department determines that any part of the stacked materials is unsuitable for reuse, and if the Owner decides to abandon part or all of such materials, said materials shall become the property of the Contractor and he shall dispose of them outside and away from the limits of the project, without additional compensation. Signs owned by the Town of Uxbridge shall be carefully removed, loaded, transported and carefully stacked at the Town of Uxbridge DPW yard at the following location:

Uxbridge DPW
147 Hecla Street
Uxbridge, MA 01569

MAINTENANCE OF TRAFFIC

Traffic shall be continuously maintained on the various streets during construction. Work on this Contract may require work to be scheduled to one side of streets and intersections at a time, allowing for one lane of continuous traffic movement in each direction.

ASPHALT THERMOMETERS (Supplementing Subsection 460.60)

The Contractor shall supply the Engineer with an approved infrared pistol thermometer and a dial type asphalt thermometer for each paving machine in operation on the project. Approved infrared thermometers are listed on MassDOT's Approved Products List available from the MassDOT Research and Materials Division, telephone (617) 526-8686.

All thermometers will remain the property of the Contractor upon completion of the project.

CONCRETE FOUNDATIONS

Concrete foundations of items to be removed, if not interfering with the proposed construction, may be abandoned in place with written approval of the Engineer. Foundations left in place under the roadway surface shall be removed to a depth of three (3'-0") feet; all other foundations left in place shall be removed to a depth of six (6") inches below the finished grade unless otherwise specified. The top six (6") inches shall be restored to match the existing grade with materials similar in kind to the abutting materials and shall be paid for under the pertinent payment items.

Upon the date of acceptance of the project by the Town, the Contractor shall turn over all guarantees and warranties to the Town.

TRAFFIC OFFICERS

The Contractor shall furnish police services as required to direct traffic on existing roadways where traffic is maintained.

The Contractor shall provide such police officers as may be deemed necessary by either the Engineer or the Department for the direction and control of all traffic traveling within and through the project area. The police officers shall be obtained from the Massachusetts State Police or the Town police department, as applicable. Police officers shall be paid by the Contractor at the established prevailing wage rate.

DIVISION II - TECHNICAL SPECIFICATIONS

The following Items reflect special conditions particular to this Project. As such, they amend and/or supplement the provisions governing the item as described in the Standard Specifications.

<u>ITEM 120.1</u>	<u>UNCLASSIFIED EXCAVATION</u>	<u>CUBIC YARD</u>
--------------------------	---------------------------------------	--------------------------

The work to be performed under this item shall consist of all earth excavation as specified in Subsection 120.21, rock excavation as specified in Subsection 120.22 and all other excavation not provided elsewhere in the contract.

When working next to existing retaining or balance stone walls to be retained, the Contractor shall exercise extreme caution not to disturb the existing wall. If the existing wall is disturbed, it shall be reconstructed at the Contractor's expense to thoroughly match the existing wall in color, texture, material, and workmanship.

Foundations left in place under roadway surface shall be removed to a depth of three (3'-0") feet below finished grade; all other foundations left in place shall be removed to a depth of twelve (12") inches below the finished grade. The area shall be restored to match the existing or proposed grade with materials similar in kind to the abutting materials and will be paid for under the pertinent pavement items.

Before starting excavation, the Contractor shall field check and verify all the vaults, septic systems, sprinkler systems, and other structures in the project area and make sure that the excavation will not disturb or damage such structures. They shall coordinate their construction activities with the owners of such structures and obtain approval or permits, if necessary, prior to starting the excavation. Any damage done to these structures during the construction process will be the responsibility of the Contractor and will be repaired by the Contractor at their own expense. If the Owner so wishes, they shall repair the damage themselves and bill the Contractor for their expenses.

Measurement and payment for work under this item shall be at the contract unit bid price per cubic yard, which price shall constitute full compensation for all labor, materials, equipment, tools and other incidentals necessary to satisfactorily complete the work to the satisfaction of the Engineer.

<u>ITEM 153.</u>	<u>CONTROLLED DENSITY FILL - EXCAVATABLE</u>	<u>CUBIC YARD</u>
-------------------------	---	--------------------------

* *This item is included for use as contingency item as determined by the Engineer.*

The work to be performed under this item shall conform to the relevant provisions of Section 150 of the Standard Specifications and the following:

Controlled Density Fill shall be Type 2E, in conformance with subsection M4.08.0 of the Standard Specifications.

Controlled Density Fill shall be used as directed by the Engineer for use in backfilling abandoned drainage structures as well as pipe trenches and/or structure excavations in existing roadways to be milled and resurfaced or permanently patched.

Measurement and payment for work under this item shall be paid for at the contract unit price per cubic yard, which price shall include material, labor, complete in place as directed by the Engineer. The use of steel plates may be required to maintain traffic at trench areas until Controlled Density Fill has set. The cost to provide, set up and remove the steel plates shall be considered incidental to this item.

<u>ITEM 504.2</u>	<u>GRANITE CURB TYPE VA4 SPLAYED END</u>	<u>EACH</u>
-------------------	--	-------------

The work to be performed under this item shall conform to the relevant provisions of Section 500 of the Standard Specifications and the following:

Granite splayed ends shall be used to make the transition from vertical granite curb to HMA berm, as detailed on the plans or as directed by the Engineer. Splayed ends shall be of the same type and material as the abutting curb.

Splayed ends shall have a minimum length of six feet (6'-0").

Measurement and payment for work under this item shall be at the contract unit bid price per each, which price shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work to the satisfaction of the Engineer.

<u>ITEM 507.</u>	<u>GRANITE CURB TYPE M100 - STRAIGHT</u>	<u>FOOT</u>
<u>ITEM 507.1</u>	<u>GRANITE CURB TYPE M100 - CURVED</u>	<u>FOOT</u>

The work to be performed under these items shall conform to the relevant provisions of Section 500 of the Standard Specifications and the following:

Granite curb type M100 shall be furnished and installed adjacent to the cement concrete truck apron as shown on the Plans. The curbing shall be nine (9") inches wide and 20 inches in depth, with a minimum length of curb of four (4'-0") feet.

The curb shall be chambered and set at the reveal as shown in the Construction Details.

The material shall be granite and shall be hammered or sawed to an approximately true plane and shall have no projections or depressions greater than 1/8 of an inch.

Measurement and payment for work these items shall be made at the contract unit bid prices per foot, which price shall constitute full compensation for furnishing and installing curb as well as installing cement concrete support, to the satisfaction of the Engineer.

<u>ITEM 685</u>	<u>STONE MASONRY WALL IN CEMENT MORTAR</u>	<u>CUBIC YARD</u>
-----------------	--	-------------------

The work to be performed under this item shall conform to the relevant provisions of Sections 644, 685 and 901 of the Standard Specifications and the following:

All cement concrete used for retaining wall construction, including placement around existing pipes and flared-end sections shall be considered incidental to the work under this item with no additional compensation to be made therefor.

<u>ITEM 697.1</u>	<u>SILT SACK</u>	<u>EACH</u>
-------------------	------------------	-------------

The work to be performed under this item shall conform to the relevant provisions of Sections 227 and 670 of the Standard Specifications and the following:

The work to be performed under this item includes the furnishing, construction, maintenance and removal of fabric sacks to be installed in drainage structures for collecting sediment and debris, as well as the protection of wetlands and other resource areas.

Inlet Protection (Silt Sacks) shall be installed prior to commencement of any excavation including, but not limited to, pavement milling, full-depth construction, box widening or earth excavation.

Silt sacks shall be installed in catch basins within the project limits and as required by the Engineer.

Silt sacks shall be manufactured to fit the catch basin or gutter inlet to which they are to be installed. They shall be manufactured in such a way that they will be able to be removed emptied and reinstalled. They shall be manufactured from woven polypropylene geotextile material. The silt sack shall have built-in high-flow relief systems (overflow weirs).

Silt sacks shall be manufactured by one of the following:

- ACF Environmental, Wilmington, MA 01887
- Atlantic Construction Fabrics, Inc., 1801-A Willis Road, Richmond, VA 23237
- ESS Brothers and Sons, Inc., 9350 CR 19, Loretto, MN 55357
- Bowhead Manufacturing Company, P0 Box 80327, Seattle, WA 98108
- or approved equivalent.

Silt sacks shall remain in place until the placement of the pavement overlay or top course and the graded areas have become permanently stabilized by vegetative growth. All materials used for the filter fabric shall become the property of the Contractor and shall be removed from the site at the completion of the project.

The Contractor shall inspect the condition of silt sacks after each rainstorm and during major rain events. Silt sacks shall be cleaned periodically to remove accumulated sediment and debris as required. All debris accumulated in silt sacks shall be handled and disposed of in accordance with the relevant provisions of Section 227 of the Standard Specifications.

Silt sacks which become damaged during construction operations shall be repaired or replaced immediately at no additional cost.

Measurement and payment for work under this item shall be at the contract unit bid price per each silt sack installed, complete in place, which price shall constitute full compensation for all labor, materials, equipment, and incidentals necessary, including cleanup and removal at the completion of the project, to complete the work to the satisfaction of the Engineer.

<u>ITEM 701.2</u>	<u>CEMENT CONCRETE PEDESTRIAN CURB RAMP</u>	<u>SQUARE YARD</u>
--------------------------	--	---------------------------

The work to be performed under this item shall conform to the relevant provisions of Section 701 of the Standard Specifications and the following:

All pedestrian curb ramps shall be constructed in accordance with MassDOT's latest Construction Standards for Pedestrian Curb Ramps.

The Contractor shall establish grade elevations at all pedestrian curb ramp locations and shall set transition lengths in accordance with the table as shown on MassDOT Construction Standard Drawing E 107.9.0 and in accordance with the details shown on the plans.

All pedestrian curb ramp joints and transition sections, which define grade changes, shall be formed, staked and checked prior to placing cement concrete. All grade changes are to be made at joints.

Detectable Warning Panels

The Contractor shall furnish and install Detectable Warning Panels in all pedestrian curb ramps in accordance with MassDOT Construction Standard Drawings E 107.2.1, E 107.6.0 and E 107.6.5 of the 2017 MassDOT Construction Standard Details as well as the Construction Drawings.

The panels shall be cast-in-place composite paver tiles with an inline dome pattern, a composition of homogenous glass and carbon reinforced composite and "Federal Yellow" in color.

Measurement and payment for work under this item shall be at the contract unit bid price per square yard, complete in place, which price shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work to the satisfaction of the Engineer.

ITEM 701.31 STAMPED CEMENT CONCRETE TRUCK APRON CUBIC YARD

The work to be performed under this item shall conform to the relevant provisions of Sections 476 and 701 of the Standard Specifications and the following:

Cement concrete median shall consist of red brick colored stamped cement concrete in the median islands, as shown on the Plans. These are generally located along the approaches to the roundabouts and flush with the surrounding vertical granite curbing. The cement concrete shall be eight (8") inches in thickness.

Cement concrete truck aprons shall consist of red brick colored stamped cement concrete around the central island of the roundabout as shown on the Plans. The cement concrete shall be eight (8") inches in thickness.

Prior to ordering materials, the Contractor shall submit to the Engineer for approval, samples of each cement concrete type. Samples of other materials to be used and samples for testing shall be submitted as requested by the Engineer.

Measurement and payment for work under this item shall be at the contract unit bid price per cubic yard, complete in place, which price shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work to the satisfaction of the Engineer.

ITEM 740. ENGINEER'S FIELD OFFICE AND EQUIPMENT MONTH

(TYPE A)

The work to be performed under this Item shall conform to the relevant provisions of Subsection 740 of the Standard Specifications and the following:

General

A computer system and printer system meeting minimum requirements set forth below including installation, maintenance, power, paper, disks, and other supplies shall be provided at the Resident Engineer's Office:

All equipment shall be UL approved and Energy Star compliant.

The Computer System shall meet the following minimum criteria or better:

Processor:	Intel, 3.5 GHz
System Memory (RAM):	12 GB
Hard Drive:	500 GB
Optical Drive:	DVD-RW/DVD+RW/CD-RW/CD+RW
Graphics Card:	8 GB
Network Adapter:	10/100 Mbit/s
USB Ports:	6 USB 3.0 ports
Keyboard:	Generic
Mouse:	Optical mouse with scroll, MS-Mouse compliant
Video/Audio:	the computer system shall be capable of allow video calling and recording:
Video camera:	shall be High Definition 1080p widescreen capable video calling and recording with built in microphone. The microphone system shall capture natural audio while filtering out background noise.
Audio:	shall be stereo multimedia speaker system delivering premium sound.
OS:	Latest Windows Professional with all security updates
Web Browser:	Latest Internet Explorer with all security updates
Applications:	Latest MS Office Professional with all security updates Latest Adobe Acrobat Professional with all security updates Latest Autodesk AutoCAD LT Antivirus software with all current security updates maintained through the life of the contract.
Monitors:	Two (2) 27" LED with Full HD, 1920 x 1080 max. resolution
Flash drives:	Two (2) 128GB USB 3.0
Internet access:	High Speed (min. 24 mbps) internet access with wireless router.

The Multifunction Printer System shall meet the following minimum criteria or better:

Color laser printer, fax, scanner, email and copier all in one with the following minimum capabilities:

- Estimated volume 8,000 pages per month
- LCD touch panel display
- 50 page reversing automatic document feeder
- Reduction/enlargement capability
- Ability to copy and print 11" x 17" paper size
- email and network PC connectivity
- Microsoft and Apple compatibility
- ability to overwrite latent images on hard drive
- 600 x 600 dpi capability
- 30 pages per minute print speed (color)
- 4 paper trays standard (not including the bypass tray)
- Automatic duplexing
- Finisher with staple functions
- Standard Ethernet. Print Controller
- Scan documents to PDF, PC and USB
- ability to print with authenticated access protection

The Contractor shall supply a maintenance contract for next day service, and all supplies (toner, staples, paper) necessary to meet estimated monthly usage.

The Engineer's Field Office and the equipment included herein including the computer system, and printer shall remain the property of the Contractor at the completion of the project. Disks, flash drives, and card readers with cards shall become the property of the Town.

Compensation for this work shall be made at the contract unit price per month which price includes full compensation for all services and equipment, and incidentals necessary to provide equipment, maintenance, insurance as specified and as directed by the Engineer.

<u>ITEM 748.</u>	<u>MOBILIZATION</u>	<u>LUMP SUM</u>
------------------	---------------------	-----------------

The work to be performed under this item shall conform to the relevant provisions of Section 748 of the Standard Specifications and the following:

General

This Item shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies and other incidental items to the project site or for costs which must be incurred prior to beginning work.

Compensation

The first payment of one third of the lump sum bid price for Mobilization or three (3%) percent of the total bid price, whichever is less, shall be made on the first estimate.

The second payment of one third of the lump sum bid price for Mobilization or three (3%) percent of the total bid price, whichever is less, shall be made on the second estimate and the completion of five (5%) percent of the total Contract price.

The third payment of one third of the lump sum bid price for Mobilization or three (3%) percent of the total bid price, whichever is less, shall be made on the third estimate and the completion of ten (10%) percent of the total Contract price.

Upon completion of all the work on the project, payment of any amount bid for Mobilization in excess of the total amounts previously paid shall be paid with the final estimate.

<u>ITEM 755.35</u>	<u>INLAND WETLAND REPLICATION AREA</u>	<u>LUMP SUM</u>
--------------------	--	-----------------

The work to be performed under this item shall conform to the relevant provisions of Sections 120, 770 and 771 of the Standard Specifications and the following:

General

The work to be done under this item consists of furnishing all necessary labor, materials and equipment required for the protection, construction, oversight and maintenance of a Wetland Replication Area as shown on the Plans.

Description

It shall be the responsibility of the Contractor to retain a Botanist, Biologist, Wetland Scientist, or other individual with similar qualifications and a minimum of two (2) years of experience in similar wetlands replication, wetland hydrology and thoroughly versed in the Commonwealth of Massachusetts Wetlands Protection Act (MGL c. 131 §40) and all other relevant regulations of the Department of Environmental Protection. This individual, herein after referred to as "Wetland Specialist", shall be approved by the Engineer and the Town of Uxbridge Conservation Commission. The name and phone number of the Wetland Specialist shall be filed with the Conservation Commission prior to the initiation of work.

The construction of the Wetland Replication Area shall be conducted under the direct supervision of the qualified Wetland Specialist. The wetland replication area shall be constructed between the dates of April 1 and September 30. However, the planting of the nursery stock and the seeding of the disturbed soils shall occur as early in the growing season as possible (before June 30 is optimal) in order to avoid periods of drought associated with the summer months. The Contractor shall be responsible for the watering and protection of the nursery stock and seed after planting as per these specifications.

The Contractor shall plan and execute operations in a manner minimizing the amount of excavated and exposed fill, or other foreign material that are washed or otherwise carried into the replication area and adjacent wetland resource areas.

The intent of this specification is to construct the replication area as close as possible to the characteristics of the existing wetland. This operation shall be as continuous as possible once begun.

This project is subject to Chapter 131 of the Massachusetts General Laws, Section 40, as amended. Signs of not less than two (2 SF) square feet or more than three (3 SF) square feet bearing the words: "Massachusetts Department of Environmental Protection File Number #312-1134" shall be placed in locations directed by the Engineer. The Contractor shall furnish and erect the signs at the time physical construction work starts and maintain and move the signs, if necessary, in a satisfactory manner for the duration of the contract. All costs for the manufacture, erection, maintenance and removal of the signs shall be borne by the Contractor under the contract lump sum bid price, with no additional compensation to be made therefor.

The Contractor shall note that this project is subject to conditions specified under the Massachusetts Department of Environmental Protection, Bureau of Resource Protection, Order of Conditions for Wetland Permit File #312-1134, and all regulations covered under the Massachusetts Wetland Protections Act.

Clearing and Grubbing

All work shall be done in accordance with the relevant sections of the Standard Specifications. Clear and grub all trees, shrubs, and brush within the limits of work as shown on the Plans for the replication area work. Trees beyond this limit of work shall be retained in place.

Erosion/Sedimentation Controls

No construction activity shall take place in the wetlands until sufficient erosion control devices have been employed on the site. A single line of compost filter tubes shall be installed along the limits of earth disturbance as shown on the Plans. This shall serve as a limit of work barrier.

Placement and removal of erosion controls (compost filter tubes) within the limits of work as described herein and as shown on the Plans, or when directed by the Engineer shall be paid for under Item 755.35.

Tree Trimming

The work under this item shall conform to the relevant provisions of the Standard Specifications and the following:

Trees to be trimmed within the limits of work as shown on the Plans shall be determined by the Engineer and all work shall be done to the satisfaction of the Engineer. The quality and method of work must conform to accepted tree trimming practices.

The method of disposal of all materials shall be the responsibility of the Contractor and shall be approved by the Engineer. All methods of disposal shall be accomplished in accordance with all applicable Federal, State and local ordinances. Burning on-site shall not be permitted.

Tree trimming shall be paid under the lump sum bid price for Item 755.35, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Tree Removal

The work shall consist of the removal and disposal of trees within the limits of work designated on the Plans to be removed, complete with the stump and major root system. The hole left by the stump shall be backfilled with suitable material and compacted in accordance with the Standard Specifications.

The trees, together with stump and major roots, shall be disposed of outside the project limits. The method of disposal of all materials shall become the responsibility of the Contractor and shall be approved by the Engineer. All methods of disposal shall be accomplished in accordance with all applicable Federal, State and local ordinances. Burning on site will not be permitted.

No trees shall be cut without the approval of the Engineer.

All trees, stumps, brush and other vegetation shall be removed from the wetland areas to be impacted by the project. These materials are not to be stockpiled in the resource area or buffer zone while awaiting disposal.

Tree removal within the replication area as shown on the plans, regardless of size, shall be paid under the lump sum bid price for Item 755.35, which price shall include all labor, material, equipment and incidental costs required to complete the work.

Wetland Replication Requirements

This wetland replication shall be performed under the direction and guidance of a qualified Wetland Specialist and as specified in these provisions. All work in replication area shall be in accordance with the Order of Conditions. The preparation of the replication area shall be accomplished in the following order:

The Commission shall be given 48-hour notice prior to the beginning of construction of the replication area. It is the intent of the Commission to meet the construction engineer and wetland specialist to discuss the restoration requirements and to ensure compliance with all special condition within the Order of Conditions.

Prior to excavation of the proposed replication and restoration areas, proposed grades shall be staked by a licensed land surveyor to indicate cuts necessary to achieve grade shown on the plans. The extent of the cut should include the necessary over-excavation to allow for backfill of clean organic soil.

Excavate wetland replacement area floor to twelve (12") inches below finished grade (subgrade) and the side slopes to six (6") inches below finish grade (subgrade).

Finished grade shall be at an elevation which shall provide a hydrologic connection between the replication area and the adjacent wetland as shown on the plans.

The wetland soils shall be deposited in the replacement area in a manner minimizing travel and subsequent compaction of the underlying material and replacement wetland soils.

All erosion control devices shall be removed from all areas after all upgradient soils have been stabilized as determined by the Engineer and Town of Uxbridge Conservation Commission.

References and Standards

The following related terms are used herein and shall mean:

- A. Standard Specifications: the Massachusetts Department of Transportation - Highway Division's *2021 Standard Specifications for Highways and Bridges* and the latest *Supplemental Specifications*, as issued.
- B. ASNS: "American Standard for Nursery Stock," ASNS 260.1, latest edition, published by the American Association of Nurserymen, (AAN).
- C. SPN: "Standardized Plant Names," latest edition, by the American Joint Committee on Horticultural Nomenclature.
- D. AOAC: Association of Official Agricultural Chemists.
- E. Pruning Standards: The "Standards for Pruning Shade Trees" of the National Arborist Association, 174 Route 101, Bedford, NH 03102.

Submittals

Prior to any disturbance, clear and legible digital photographs with date and time stamps shall be taken of the existing site conditions including existing wetlands to be impacted, all proposed wetland mitigation sites and reference/model wetland areas, typically an adjacent undisturbed wetland. These photographs shall be submitted to the Engineer via digital format on a compact disc (CD) or USB flash drive.

At least 30 days prior to ordering, the Contractor shall submit to the Engineer plant schedule and certificates with source and date, as well as material specifications for all wetland plants. No material shall be ordered until submittals have been approved by the Engineer. Delivered materials shall match approved materials.

At least 30 days prior to ordering, the Contractor shall submit to the Engineer seed packing certificates with source and date, as well as material specifications for all mulch materials. No material shall be ordered until submittals have been approved by the Engineer. Delivered materials shall match approved materials. A Manufacturer's Certificate of Compliance shall be submitted with each plant and seed shipment.

Seed shall be brought to the site in unopened bags for approval by the Engineer. Engineer shall collect certification from bag prior to opening bag and prior to any seeding activity. Certification list shall match species and approximate percentages listed herein or as recommended by the supplier. Seeding without

approval of the Engineer shall be considered unacceptable for payment.

At least 30 days prior to ordering, the Contractor shall submit to the Engineer soil test results and certificates with source and date, as well as material specifications for all wetland soil materials. No material shall be ordered until submittals have been approved by the Engineer. Delivered materials shall match approved materials. Soil test results: Submit laboratory reports which state nutrient levels, pH, organic matter content and grain size seven (7) days prior to commencement of Work.

Materials

Wetland Plants

The intent of this section is to ensure that at least 75 percent of the replacement area surface is reestablished with indigenous wetland plant species within two (2) growing seasons of their planting in accordance with the Performance Standards of the Massachusetts Wetlands Protection Act Regulations. The following specifications provide for planting of the nursery stock, seeding, monitoring, and replacement of plant materials if necessary.

Planting Specifications

After the replication area has been prepared as described above, the area shall be planted with nursery stock trees and shrubs as shown on the plan. The planting of the stock shall occur prior to June 30 or after October 15, while the seeding shall occur between April 15 and June 30 or as directed by the Wetland Specialist and approved by the Engineer.

Plant Materials

All plant materials used shall be nursery grown and healthy, sound and free of disease, insect pests, eggs or larvae, and shall have a well-developed root system. Container grown plants shall have sufficient roots to hold planting mix intact after removal from containers without being root-bound.

Plant materials shall be planted within four (4) days of arrival on the project site.

The nursery stock planting shall consist of the material specified on the Plans. It may be necessary to substitute if the specified plant material is unavailable. Substitutions must be approved by the Wetland Specialist and the Engineer prior to planting.

The Contractor shall furnish all plants shown on the plans as specified, and in quantities listed. No substitutions will be permitted. All plants shall be nursery grown.

Plants shall be in accordance with the ASNS Standards of the American Association of Nurserymen (AAN) as a minimum requirement for acceptance. All plants shall be typical of their species or variety and have a normal habit of growth.

The root system of each plant shall be well provided with fibrous roots. All parts shall be moist and show active green cambium when cut. They shall be sound, healthy, and vigorous, well branched and densely foliated when in leaf. They shall be free of disease, insect pests, eggs or larvae.

All plants must be moved with the root systems as solid units with balls of earth firmly wrapped with untreated eight (8 oz) ounce burlap, firmly held in place by a stout cord or wire in containers of a size as specified or of adequate size to allow root development for the plant size as per ASNS requirements. Plants prepared with plastic or other non-biodegradable wrappings will not be accepted. The diameter and depth of the balls of earth on balled and burlapped plants must be sufficient to encompass the fibrous root feeding system necessary for the healthy development of the plant. No plant will be accepted when the ball of earth surrounding its roots has been badly cracked or broken prior to, or during the process of planting or after the burlap, staves, ropes, container or platform required in connection with its transplanting have been removed. The plants and balls shall remain intact during all operation. All balled and burlapped plants that cannot be planted at once must be heeled in by setting in the ground and covering the balls with soil and watering.

The caliper of the trees shall be not less than the minimum size as required by ASNS standards based upon the height of the trees (measured from the crown of the roots to the tip of the top branch) as shown on the plans. Take caliper measurement for deciduous trees six (6") inches above ground level up to and including four (4") inch caliper size and twelve (12") inches above ground for larger sizes. Evergreen trees shall be of height designated on the Plans with spread in proportion to height, as designated in the ASNS Standards, and shall be well-branched to the ground. The trunk of each tree shall be a single trunk growing from a single un-mutilated crown of roots. No part of the trunk shall be conspicuously crooked as compared with normal trees of the same variety. The trunk shall be free from sunscald, frost cracks, or wounds resulting from abrasions, fire or other causes. No pruning wounds shall be present having a diameter exceeding two (2") inches and such wounds must show vigorous scar tissue on all edges. Plants shall not be pruned prior to delivery to the site.

Shrubs shall meet the requirements for spread or height stated on the Plans. The measurements for height shall be taken from the ground level to the average height of the shrub and not to the longest branch. Single stemmed or thin plants will not be accepted. The side branches must be generous, well twigged, and the plant as a whole well-branched to the ground. The plants must be in a moist vigorous condition, free from dead wood, bruises or other root or branch injuries.

Container grown stock shall have been grown in a container long enough for the root system to have developed sufficiently to hold its soil together, firm and whole. No plants shall be loose in the container. No container-grown plants shall be pot bound.

Plants delivered by truck and plants requiring storage on site shall be properly wrapped and covered to prevent wind-drying and desiccation of branches, leaves or buds; plant balls shall be firmly bound, unbroken, reasonably moist to indicate watering prior to delivery and during storage and tree trunks shall be free from fresh scars and damage in handling. No trees with double-leaders or twin-heads will be acceptable without the written approval of the Engineer. No plant material from cold storage will be accepted.

Planting Fertilizer

The use of chemical fertilizers, pesticides, herbicides and sodium-based products is prohibited within 100 feet of the wetlands to reduce impact of these products on the resource areas when transported by stormwater or by leaching through the soil.

Planting Soil Mix

Planting soil mix shall be approved loam which has been pH adjusted according to particular planting applications and improved through the addition of organic matter as directed below. Planting loam shall conform to the following pH levels:

- A. The amount of either sulphur or limestone required to adjust the planting loam to the proper pH range (above) shall be approved by the Design Engineer on the basis of soil tests as specified herein. It is not possible to safely add more than two hundred pounds (200 lbs.) of limestone/one thousand (1,000) square feet of loam, incorporated into the soil, or fifty pounds (50 lbs.) of limestone/one thousand (1,000) square feet of loam, surface application, within a single season. Therefore, loam shall have a starting pH of no lower than 4.2 for ericaceous plants and broad-leaved evergreens, and a starting pH of no lower than 5.0 for general planting of non-acid loving plants.
- B. Imported Loam: Natural, fertile, agricultural soil typical of locality, capable of sustaining vigorous plant growth, obtained from well drained site free of flooding, not in frozen or muddy condition, not less than 6 percent organic matter, and pH value of 6.0 to 8.0. Free from subsoil, slag, clay, stones 2-inches or greater, lumps, live plants, roots, sticks, crabgrass, noxious weeds, and foreign matter. Shall be 50-100% passing the 1" sieve.
- C. Organically-Enriched Topsoil: Fertile, friable, natural topsoil, typical of the locality. It shall be poorly drained, and capable of supporting plant growth. Topsoil shall contain greater than 12 percent organic carbon as determined by loss-on-ignition of oven-dried samples. It shall be free from admixture of subsoil, foreign matter, stumps, roots, weeds, toxic substances, stiff clay, stones or other objects larger than 1-inch in any dimension, and any material or substances that may be harmful to plant growth.

Water

The Contractor shall be responsible to furnish their own supply of water to the site at no extra cost if municipal water is not available at the site at the time of planting. All work injured or damaged due to the lack of water, or due to the use of too much water, shall be the Contractor's responsibility to correct. Water shall be free from impurities injurious to vegetation. Water, including hose and all other watering equipment required for the work, shall be furnished by the Contractor to the site at no extra cost. Water shall be suitable for irrigation and free from ingredients harmful to plant life. All plants injured or work damaged due to the lack of water or the use of too much water shall be the Contractor's responsibility to correct.

Guying and Anchoring Materials

Hose to encase wires shall be two-ply reinforced rubber garden hose not less than one-half inch inside diameter. Color shall be black. The Contractor may choose to substitute two (2") inch wide nylon webbing for the rubber hose. The webbing must be at least four (4") inches longer than the circumference of the tree and have brass grommet holes at each end for cable attachment.

Cable and Fittings: Cable shall be 13 gage, 7 strand, galvanized steel cable. Turnbuckles shall be of zinc-plated steel of size and gage to provide tensile strength equal to that of the cable. Turnbuckle opening shall be a minimum of three (3") inches. Cable clamps shall be malleable compression sleeves of zinc plated copper. Sleeves shall be of double barreled configuration for looped connection and sized to match the steel guy or anchor cable. Warning flags for evergreen tree guy wires shall be yellow plastic surveyor's flagging, one (1") inch wide and 24 inches long

All plantings shown on the drawings to be guyed shall be firmly staked, guyed or anchored at the time of planting. Stakes shall be of even height, evenly spaced around the tree, plumb, neat in appearance and shall not injure plant rootballs. Guy cables shall be secured to the tree by passing through an approved hose to prevent injury to the trees or securely fastened to an approved nylon webbing using specified compression sleeves.

Seed Mixes

The following seed mixes shall be used in the areas indicated on the Plans. Submittals for approval must list actual percentages.

<u>Seed Mix</u>	<u>Area of Use</u>
New England Wetland Mix	Wet Meadow Seeding
New England Roadside Matrix Wet Meadow Seed	Wet Meadow Seeding

Any species substitutions shall be with a species having similar characteristics and native to New England.

Construction Methods

Planting

Furnishing and planting of plant material includes the digging of the pits and plant beds, provision of soil additives required to adjust for pH requirements of specific plants, furnishing the plants as specified as well as the labor of planting, fertilizing, mulching, guying, and maintenance.

The Contractor shall locate plant material sources and ensure that plants are shipped in timely fashion for installation.

The Contractor shall locate all underground utilities within ten (10'-0") feet of the proposed planting pits and notify the Engineer of any conflicts prior to digging plant pits.

Location for all trees and shrubs and outlines for groundcover and bulb planting areas shall be staked on the ground by the Contractor for approval by the Engineer before any plant pits or plant beds are dug.

Seasons for Planting

Spring: Deciduous materials - March 21 through May 1
 Evergreen materials - April 15 through June 1

Fall: Deciduous materials - October 1 through December 1
 Evergreen materials - August 15 through October 15

Certain trees, as shown on the plans, shall only be planted in the spring. The Contractor shall arrange project schedule as necessary to allow for spring planting of these trees. Substitutions of other plants for the trees specified in order to perform fall planting shall not be accepted.

1. All plants for the project shall be individually tagged prior to digging with the Engineer's and Wetland Specialist's seals. No plants shall be accepted for delivery to the site without such seals.
2. Tree trunks shall be protected during shipping by a heavy walled cardboard sleeve or other suitable material, then unwrapped for inspection by Engineer after installation.

3. All trees and shrubs shall be planted within five (5) working days of arrival on site or shall be rejected by the Engineer. Container grown shrubs stored on site shall be shaded from direct sunlight at all times and shall not be stored on paved surfaces.
4. Plant pits shall be excavated as shown on plans. Holes for trees and planting mix backfill shall be as indicated on the plans and at least one (1'-0") foot greater in diameter than the ball and one (1'-0") foot deeper than the ball. Shrub planting beds shall be excavated two (2'-0") feet below proposed finish grade and shall extend a minimum of one (1'-0") foot beyond the rootball of shrubs placed at the edge of the planting bed.
5. Loosen the perimeter roots on the rootball of all container-grown shrubs, groundcovers and perennials prior to planting, as directed by the Engineer or Wetland Specialist.
6. All plant roots and earth balls must be damp and thoroughly protected from sun and wind from the beginning of the digging operation, during transportation and at the site until the final planting. Remove container plants from containers prior to planting. Trees and shrubs shall be placed in the center of plant pits, plumb with the crown of their roots exposed and located above the surrounding finish grade. After completion of planting installations, remove rope, burlap and wire baskets from only the top one-third (1/3) of the root balls. Wetland soil mix shall be backfilled in layers of not more than 6 inches and each layer watered sufficiently to settle before the next layer is put in place. Enough loam shall be used to bring the surface to finished grade when settled. A saucer shall be formed around each plant at a depth of six (6") inches for trees and four (4") inches for shrubs.
7. All plants shall be watered immediately following planting as necessary to thoroughly moisten rootball and plant pit loam and thereafter shall be inspected frequently for watering needs and watered, as required, to provide adequate moisture in the planting pit.
8. The Contractor shall inspect tree pits 24 hours after initial watering to confirm that they are draining properly. If surface water or excessively saturated plant pit soils exist, the Contractor shall immediately notify the Engineer.
9. Pruning:
 - a. Trees and shrubs shall be pruned following planting in accordance with the American Nurserymen's Association Standards for Class I, fine pruning, to preserve the natural character of the plant, as directed by the Engineer.
 - b. Tree pruning as required, shall be undertaken to the full height of affected trees.
 - c. All dead wood or suckers and all broken or badly bruised branches shall be removed. Never cut a leader.
10. All trees shall be firmly guyed or anchored at the time of planting, unless otherwise approved or directed by the Engineer. Cables used for guying shall be secured to the tree by passing through an approved hose or nylon webbing to prevent chafing and injury to the trees. All cable ends at stakes, webbing, deadmen, turnbuckles, hose or anchor connections shall be formed with a looped connection secured with compressed malleable fittings as specified.

Plant Maintenance

The Contractor shall maintain all new plantings as indicated below. Maintenance shall begin immediately after each plant is planted and shall continue for a minimum of two (2) years following the completion of all planting installations, or until the final acceptance of all planting work, whichever is a longer period of time.

Maintenance of new plantings shall consist of keeping the plants in a healthy growing condition and shall include but is not limited to watering, weeding, cultivating, pruning, re-mulching, tightening and repairing of guys, removal of dead material, resetting plants to proper grades or upright position, and maintaining the planting saucer.

1. Plants shall be inspected for watering needs at least twice each week and watered as necessary to promote plant growth and vitality.
2. Planting beds shall be kept free of weeds, and mulch shall be maintained at the required depth. Beds and individual pits shall be neat in appearance with clearly defined edges and maintained to the designed layout.
3. Plants that die during the maintenance period shall be removed by the Contractor within one week of notification and replaced during that growing season.
4. Guy wires and anchoring cables shall be tightened and repaired weekly.

Work of pruning, fertilizing, spraying, and similar activities shall be undertaken only by certified arborists and chemical applicators, as pertinent to the work being performed.

During the maintenance period, any decline in the condition of existing trees and new plantings shall require the Contractor to take immediate action to identify potential problems and undertake corrective measures. If required, the Contractor shall engage professional arborists and/or horticulturalists to inspect plant materials and to identify problems and recommend corrective procedures. The Engineer shall be immediately advised of such actions. Inspection and recommendation reports shall be submitted to the Engineer.

Planting Inspection

1. At the time of inspection, if the plant materials and workmanship are acceptable by the Engineer, the date of the inspection shall establish the end of the maintenance period and the commencement of the required guarantee period for planting work.
2. At the time of inspection or if, in the Engineer's opinion plant materials and/or workmanship is deficient, acceptance will not be granted, and the Contractor's responsibility for deficiencies are corrected. All dead and unsatisfactory plants shall be removed promptly from the project. Replacement plants shall conform in all respects to the Specifications for the original plants and shall be planted in the same manner

Plant Material Replacements

Each plant shall show at least 75 percent healthy growth and shall have the natural character of a plant of its species as determined by the Engineer. Plants found to be unacceptable shall be removed promptly from the site and replaced immediately or during the next normal planting season, as permitted by the specifications, until the replaced plants live for two (2) full years. A final replacement inspection will be made after the replacement plantings have lived through two (2) full years.

All replacements shall be plants of the species, variety and size specified on the plans. The cost shall be borne by the Contractor, except for possible replacements due to vandalism or neglect on the part of others.

Planting Procedure

Plants shall be positioned as shown on the plans or as directed by the Wetland Specialist. If unsuitable hydrologic conditions exist at the time of planting, the Wetland Specialist may reposition plans to maximize survivability.

To install each plant, a small hole shall be dug. A mixture of water and topsoil from the hole shall be prepared. The plant shall be removed from its container or burlap covering and set in the hole in a manner so that the top of the root ball is level with the surface of the ground. Care should be taken to keep the root ball intact while handling. Backfill the hole with water/soil mixture and compact lightly to eliminate any large air pockets.

After planting the nursery stock, each replacement area shall be hand raked to eliminate soil compaction. Hand raking shall continue until the top six inches of soil is loose.

Monitoring and Replacement

Monitoring shall be performed in order to ensure satisfactory plant establishment and compliance with the Massachusetts Wetlands Protection Act Regulations performance standards.

Seasonal Monitoring reports shall be prepared for the replication area. Monitoring reports shall describe, using narratives, plans, and color photographs, the physical characteristics of the restoration area with respect to stability, soil characteristics, survival of vegetation and plant mortality, aerial extent and distribution, species diversity and vertical stratification (i.e. herb, shrub and tree layers). A total of four (4) monitoring reports for the restoration area shall be submitted over a two-year period after implementation of the replication area. The monitoring reports shall be submitted to the Conservation Commission each spring (May) and fall (October) for the growing season;

First Post-Construction Inspection

Following construction of the replication area and prior to other work on the site, the Wetland Specialist shall certify to the Conservation Commission that areas have been constructed in compliance with the Order of Conditions. Such certification shall be accompanied by a plan showing the limits of the replication and restoration area final grades as surveyed by the licensed surveyor.

Second Post-Construction Inspection

A second inspection shall be made at the end of the second growing season (in October). The Wetland Specialist shall make note of the survivability of the nursery stock, the physical condition of the nursery stock, the percent vegetative cover within the replacement area, and the composition of the herbaceous layer. The report shall direct the Contractor to replace (in kind and size) all dead nursery stock in the manner outlined in these specifications, and to re-seed areas which do not exhibit 50% vegetative cover at no cost to the Department. This report shall be submitted to Massachusetts Highway Department for distribution to the Conservation Commission, Massachusetts Department of Environmental Protection, and the Contractor. Seventy-five percent (75%) cover of indigenous wetland species shall be considered satisfactory after the second growing season. If this percentage is not achieved, additional plantings must be completed by the Contractor at no additional cost to the Department.

Surface Preparation and Seeding of Bare Soils

Bare soils shall be raked to remove large stiff clods, lumps, brush, roots, stumps, litter and other foreign matter. All depressions caused by settlement or rolling shall be filled with additional loam or compost and the soil shall be re-graded and rolled until presenting a firm, smooth and even finish corresponding to the required grades. No tracking or rolling shall be done on wet soil. Contractor shall obtain Engineer's written approval of fine grading and bed preparation before doing any seeding.

Seeding Methods

Hydroseeding shall be per the Standard Specifications and per the Manufacturer's directions. Mulch for hydroseeding shall be weed free straw only.

For all seeded areas the Contractor shall notify the Engineer and arrange for inspections at the following times:

1. Before seeding, after loam has been spread and amendments have been incorporated
2. During hand seeding operations
3. Upon completion of hand seeding operations to establish the Maintenance Period
4. End of Maintenance Period to determine Acceptance of Work

For all top-dressed areas the Contractor will notify the Engineer and arrange for inspections when:

1. When overseeding is complete to establish a Maintenance Period
2. End of maintenance period to determine Acceptance of Work

Establishment

Establishment shall begin immediately after any area is seeded, mulched, and erosion control matting (if used) is in place, and shall continue for a minimum of 60 days active growing period following the completion of all grass installation work and until final acceptance of the project. In the event that seeding operations are completed past October 1, then Establishment shall continue into the following spring and reseeding shall take place as necessary at that time.

The Contractor shall provide all labor and water required for establishment. Contractor shall water all seeded areas as necessary during Establishment period to ensure uniform soil moisture to a depth of two (2") inches or greater. Watering shall provide uniform coverage without eroding soil or grassed surfaces. Establishment shall include placement and resetting of protective barriers as required.

Maintenance and monitoring shall begin concurrently with Establishment period. Maintenance will include all necessary watering, repair, and reseeding to ensure establishment of perennials and grasses. Maintenance shall also include monitoring for invasive species. Any invasive species shall be immediately removed. All plant remains, including roots and shoots, shall be appropriately disposed off-site.

Inspection and Acceptance of Work

All areas and parts of areas which, in the opinion of the Engineer, fail to show a uniform growth, for any reason whatsoever, shall be reseeded by a method approved by the Engineer and during an approved season. Reseeding shall be repeated until all areas are covered with a satisfactory growth of grass. All reseeding, together with necessary re-grading, soil amendment and erosion control, shall be done at the expense of the Contractor.

The Contractor shall control all dirt, dust erosion and other related construction emissions from the project to the satisfaction of the Engineer.

The Order of Conditions issued by the Conservation Commission will be included in these Special Provisions and made part of these Special Provisions.

Surplus materials obtained from any type of excavation, and not needed for further use as determined by the Engineer shall become the property of the Contractor and shall be disposed of by him outside the location subject to the regulations and requirements of local authorities governing the disposal of such materials, at no additional compensation

Clean Up

Absolutely no debris may be left on the site. Repair any damage to site or structures to restore them to their original condition, as directed, at no cost to the Department

Basis of Payment

The complete in place wetland replication area consists of furnishing all necessary labor, materials and equipment required for the construction of said wetland replication area as shown on the Plans, and shall be paid for at the contract lump sum bid price for Item 755.35.

The payment shall constitute full compensation for all materials, labor, and equipment required or incidental to the satisfactory completion of the work. Work within in the limits of the replication area to be paid under this item include employment of a Wetlands Botanist/Specialist, wetlands monitoring and reporting, erosion control placement and removal, clearing and grubbing of the area shown on the Plans, tree trimming, tree removal, plantings, seeding, any wetland provided and placed, wetland soils respread, grading, excavation, providing and restoring access to the replication areas and all other work called for under this item shall be paid for at the lump sum bid price for Item 755.35 which payment shall constitute full payment for all material, labor and equipment necessary to complete the stated work in a manner satisfactory to the Engineer.

The lump sum bid price shall also include all work required by the Order of Conditions which is attached and made part of this Contract.

Any components associated with replication area shown on the plans but not specifically called for under other items in the Contract shall be paid for under the relevant items included in this Contract.

<u>ITEM 756.</u>	<u>NPDES STORM WATER POLLUTION PREVENTION PLAN</u>	<u>LUMP SUM</u>
-------------------------	---	------------------------

This Item addresses the preparation and implementation of a Storm Water Pollution Prevention Plan required by the National Pollutant Discharge Elimination System (NPDES) and applicable Construction General Permit.

Pursuant to the Federal Clean Water Act, effective March 10, 2003, construction activities which disturb one acre or more are required to apply to the U.S. Environmental Protection Agency (EPA) for coverage under the NPDES General Permit for Storm Water Discharges from Construction Activities. On July 1, 2003 (68 FR 39087), EPA published the final NPDES construction general permit for construction activity. On August 4, 2003 (68 FR 45817), EPA reissued the General Permit for the Commonwealth of Massachusetts and included state specific requirements.

The NPDES General Permit requires the submission of a Notice of Intent (NOI) to the U.S. EPA prior to the start of construction (defined as any activity which disturbs land, including clearing and grubbing). There is a seven (7) day review period commencing from the date on which EPA enters the Notice into their database. The Contractor is advised that, based on the review of the NOI, EPA may require additional information, including but not limited to, the submission of the Storm Water Pollution Prevention Plan for review. Work may not commence on the project until final authorization has been granted by EPA. Any additional time required by EPA for review of submittals will not constitute a basis for claim of delay.

In addition, if the project discharges to an Outstanding Resource Water, vernal pool, or is within a coastal ACEC as identified by the Massachusetts Department of Environmental Protection (DEP), a separate notification to DEP is required. DEP may also require submission of the Storm Water Pollution Prevention Plan for review and approval. Filing fees associated with the notification and, if required, the SWPPP filing to DEP shall be paid by the Contractor.

The owner, MassDOT, and the operator, the Contractor, must submit separate NOIs. In cases where the municipality or other party has control over the plans and specifications or day-to-day site operations, said party must also submit a NOI. The Contractor is responsible to ensure that all required parties have submitted an NOI and shall provide proof of same to the Engineer.

The General Permit also requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the afore-mentioned statutes and regulations. The Plan shall include the General Permit conditions and detailed descriptions of controls of erosion and sedimentation to be implemented during construction. It shall be the responsibility of the Contractor to prepare the SWPPP to meet the requirements of the most recently issued CGP. The Contractor shall submit the Plan to the Engineer for approval at least four weeks prior to any site activities. It is the responsibility of the Contractor to be familiar with the General Permit conditions and the conditions of any state Wetlands Protection Act Order, Water Quality Certification, Corps of Engineers Section 404 Permit and other environmental permits applicable to this project and to include in the Stormwater Pollution Prevention Plan the methods and means necessary to comply with applicable conditions of said permits.

It is the responsibility of the Contractor to complete the SWPPP in accordance with the EPA Construction General Permit, provide all information required, and obtain any and all certifications as required by the Construction General Permit. Any amendments to the SWPPP required by site conditions, schedule changes, revised work, construction methodologies, and the like are the responsibility of the Contractor. Amendments will require the approval of the Engineer prior to implementation.

Included in the General Permit conditions is the requirement for inspection of all erosion controls and site conditions on a weekly basis as well as after each incidence of rainfall exceeding 0.5 inches in twenty-four hours. The Contractor shall choose a qualified individual who will be on-site during construction to perform these inspections. The Engineer must approve the Contractor's inspector. In addition, if the Engineer determines at any time that the inspector's performance is inadequate, the Contractor shall provide an alternate inspector. Written weekly inspection forms, storm event inspection forms, and Monthly Summary Reports must be completed and provided to the Engineer. Monthly Summary Reports must include a summary of construction activities undertaken during the reporting period, general site conditions, erosion control maintenance and corrective actions taken, the anticipated schedule of construction activities for the next reporting period, any SWPPP amendments, and representative photographs.

The Contractor is responsible for preparation of the Plan, all SWPPP certifications, inspections, reports and any and all corrective actions necessary to comply with the provisions of the General Permit. Work associated with performance of inspections is not included under this Item. The Standard Specifications require adequate erosion control for the duration of the Contract. Inspection of these controls is considered incidental to the applicable items. This Item addresses acceptable completion of the SWPPP, any revisions/amendments required during construction, and preparation of monthly reports. In addition, any erosion controls beyond those specified in bid items elsewhere in this contract which are selected by the Contractor to facilitate and/or address the Contractor's schedule, methods and prosecution of the work shall be considered incidental to this item.

The CGP requires the submission of a Notice of Termination (NOT) from all operators when final stabilization has been achieved. Approval of final stabilization by the Engineer and confirmation of submission of the NOT will be required prior to submission of the Resident Engineer's Final Estimate.

Compensation

Payment for all work under this Item shall be made at the contract lump sum bid price; which price shall include all the work detailed above, including Plan preparation, required revisions, revisions/addenda during construction, monthly reports and filing fees.

Payment of fifty (50) % of the contract price shall be made upon acceptance of the Stormwater Pollution Prevention plan.

Payment of forty (40) % of the contract price shall be made in equal installments for implementation of the Stormwater Pollution Prevention plan.

Payment of the final ten (10) % of the contract price shall be paid upon satisfactory submissions of a Notice of termination (NOT) when final stabilization has been achieved.

ITEM 767.12

COMPOST FILTER TUBES

FOOT

The work to be performed under these items shall conform to the relevant provisions of Sections 670 and 767 of the Standard Specifications and the following:

Description

The work under this item shall consist of providing, installing maintaining and removing compost filter tubes in locations noted on the plans and as specified herein, for filtering suspended sediments from storm water flow.

This item consists of installing compost filter tubes consisting of a nine (9") inch diameter filter tube filled with approved compost materials.

All filter tubes must be installed and in place prior to the start of any construction activity.

Materials

Fabric material for the compost filter tubes shall be Multifilament polypropylene with a mesh opening of one-eighth (1/8") inch. The fabric shall be manufactured either orange colored or orange striped for visibility. Black fabric shall not be approved.

Fabric material shall have a tensile strength of not less than 202 psi based on ASTM specification (ASTM D5035-95) and shall have an ultra-violet exposure resistance of 100% at 1000 hours based on ASTM specification (ASTM G155).

Compost fill material for the compost filter tube shall not be derived from agricultural, food, or industrial residues; bio-solids (treated sewerage sludge); yard clippings; source-separated or mixed solid waste. The particle size shall be as noted herein. The compost shall emit no objectionable odors and shall be free of man-made foreign matter. The compost shall be certified through the U.S. Composting Council's (USCC) Seal of Testing Assurance (STA) Program All composting materials shall be provided with a *Certificate of Compliance from an STA Program Certified Laboratory*, verifying that the compost meets the parameters listed herein. The certification shall be not older than 90 days.

Compost materials for barrier fill shall be consistent with the following:

Parameter	Reported as Unit of Measure	Filter Sock Fill Value
pH	pH units	6.0-8.5
Soluble Salt Concentration	dS/m (mmhos/cm)	Maximum 5
Moisture Content	% wet weight basis	30-60
Organic Matter Content	% dry weight basis	25-65
Particle Size	% passing a selected mesh size, dry weight basis	<ul style="list-style-type: none">• 3" 100% passing• 1" 90 to 75% passing• 1/4" 40% passing
Stability Carbon Dioxide Evaluation Rate	mg CO ₂ per g OM per day	< 8
Physical Contaminants	% dry weight basis	< 1

Stakes for installing compost filter tubes shall be 1-1/2" square hardwood stakes. All wood stakes with sharp edges protruding, as is caused by driving the stakes, shall be trimmed to a blunt end. Steel stakes or plastic stakes may be used provided that the engineer has approved the material. And that protruding end of the stake is blunt or bent over.

Construction Methods

Filter tubes shall be filled by truck mounted blowers and filled with an adequate volume of material that will provide a firm barrier that slumps not more than 20% of the height measured in place. Tubes of compost may be filled on site or shipped. Tubes shall be placed, filled and staked in place as required to ensure stability against water flows. All tubes shall be tamped to ensure good contact with soil.

Filter tubes shall be installed in the locations noted on the contract drawings and in locations as directed by the engineer. Tubes shall be provided in continuous lengths not to exceed 100 feet. Shorter lengths may be used as needed to finish a line of barrier, but shall not be shorter than 10 feet.

The tube sections shall be overlapped not less than two (2'-0") feet at section ends, with the ends pressed firmly together, and all section ends shall be staked with the fabric ends tied off.

Stakes shall be driven into the existing grade not less than one (1'-0") foot. The stakes shall be spaced at a minimum of eight (8'-0") feet on center and the Contractor shall provide additional stakes as needed for the ends of each section and for overlapping sections.

The Contractor is responsible for the maintenance of the sedimentation barrier during construction. This shall include the periodic inspection of the barrier lines during construction. The Contractor shall remove accumulated sediment that is higher than one half the height of the barrier, or before a major storm event as directed by the Engineer.

The Contractor shall remove the tubes at the completion of the project. The removal shall include removing all sediment accumulated at the barrier line, all stakes, the tubes and the compost fill. The timing of this removal shall be as directed by the Engineer and shall not occur before a major storm event. The final grade below and around the filter tubes shall be finished to the match the existing grade.

The Contractor shall ensure that the filter tubes function as intended at all times. Tubes shall be inspected after each rainfall and at least daily during prolonged rainfall. The Contractor shall immediately correct all deficiencies, including, but not limited, to washout, overtopping, clogging due to sediment, and erosion. The Contractor shall review location of tubes in areas where construction activity causes drainage runoff to ensure that the tubes are properly located for effectiveness. Where deficiencies exist, such as overtopping or wash-out, additional staking or compost material shall be installed as directed by the Engineer. The Contractor shall remove sediment deposits as necessary to maintain the filters in working condition. The functional integrity of filter tubes shall be maintained in sound condition at all times. Filter tubes that are decomposing, cut, or otherwise compromised shall be repaired or replaced as directed by the Engineer and be incidental to this item.

Measurement and payment for work under this item shall be paid for at the contract unit price per foot of sediment control barrier installed, which price shall include all labor, equipment, materials, maintenance, dismantling, removal, restoration of soil, and all incidental costs required to complete the work.

ITEM 767.6

AGED PINE BARK MULCH

CUBIC YARD

* *This item is included for use as contingency item as determined by the Engineer.*

The work to be performed under this item shall conform to the relevant provisions of Section 767 of the Standard Specifications and the following:

Aged pine bark mulch shall be placed in four (4") inch thick layers, as shown on the plans or as directed by the Engineer.

Measurement and payment for work under this item shall be at the contract unit bid price per cubic yard, which price shall constitute full compensation for all labor, materials, equipment and incidentals necessary to complete the work to the satisfaction of the Engineer.

<u>ITEM 804.2</u>	<u>2 INCH ELECTRICAL CONDUIT</u> <u>TYPE NM - PLASTIC - (UL)</u>	<u>FOOT</u>
<u>ITEM 804.3</u>	<u>3 INCH ELECTRICAL CONDUIT</u> <u>TYPE NM - PLASTIC - (UL) (DOUBLE)</u>	<u>FOOT</u>
<u>ITEM 806.3</u>	<u>3 INCH ELECTRICAL CONDUIT</u> <u>TYPE RM – GALVANIZED STEEL</u>	<u>FOOT</u>

The work to be performed under these items shall conform to the relevant provisions of Section 800 of the Standard Specifications and the following:

The work shall include the furnishing and installing non-metallic and galvanized steel conduit for traffic signal and lighting systems in accordance with the Plans and as required by the Engineer. The conduit material shall be schedule 80 polyvinyl chloride (PVC) plastic conduit or rigid metallic conduit type RM, by location as identified on the Plans. The conduit quantity may be increased or decreased by the Engineer depending upon actual conditions encountered as provided for in Section 4.06 of the Standard Specifications.

The conduit shall be laid and covered in the trench with sand borrow as shown on the plans. Furnishing and installing all necessary or incidental couplings, reducers, fittings, and necessary incidental hardwire shall be included. A six (6") inch wide metallic detectable warning tape shall be used in conjunction with the installation of all conduit.

Installation of Conduit in Grass or in Planted Areas

Where new conduit is to be installed in grass or planted areas, work shall include placement of a minimum of four (4") inches of loam borrow, seed, and any other materials replaced in kind to restore disturbed areas to their original condition. Any existing plants (bushes, flowers, etc.) removed or damaged as a result of this project shall be replaced in kind. Conduit shall be installed within a bed of sand borrow and with a metallic detectable warning tape placed 18" above the conduit.

Installation of Conduit under Sidewalks, Islands or Medians

Where conduit is to be installed in sidewalks, paved islands or paved median areas, the work shall include excavating and backfilling of trenches, including all necessary compaction. Conduit shall be installed within a bed of sand borrow and with a metallic detectable warning tape.

Installation of Conduit in Areas of Milling and/or Resurfacing

Trenches in existing asphalt pavements to be milled and/or resurfaced shall be sawcut to an 18" width. The existing pavement shall be sawcut through its full depth and the pavement removed.

After installation of conduit and sand borrow; the trench shall be backfilled with controlled density fill (CDF). CDF shall be Type 2E and shall be as specified in Section M4.08.0 of the Standard Specifications. The finished grade of the CDF shall allow for a twelve (12") thick layer of compacted gravel borrow (type B), installation of metallic warning tape and a pavement patch of the same thickness as the existing pavement to be installed over the CDF prior to installation of the final surface course.

If the existing roadway has a concrete base, then the trench shall be bridged with a high early strength cement concrete cap of the same thickness as the existing concrete base course. A hot mix asphalt patch shall be placed over the concrete cap and shall be of the same thickness as the existing pavement. Hot mix asphalt shall be placed in two (2") inch maximum lifts.

Installation of Conduit Crossing Existing Roadways

Trenches in existing asphalt pavements not subject to full-depth reconstruction, reclamation or milling /resurfacing shall be sawcut to an 18" width. The existing pavements shall be sawcut through their full depth and the pavement removed.

After installation of conduit and sand borrow, the trench shall be backfilled with controlled density fill (CDF). CDF shall be Type 2E and shall be as specified in Section M4.08.0 of the Standard Specifications. The grade of the CDF shall be finished twenty (20") inches below the existing pavement surface to allow for a twelve (12") thick layer of compacted gravel borrow (type B), installation of metallic warning tape and an eight (8") inch thick permanent pavement patch to be installed over the CDF in the trench. The pavement patch shall consist of a two (2") inch Superpave Surface Course placed over a two (2") inch Superpave Intermediate Course, placed over a four (4") inch Superpave Base Course which is to be placed in two (2) equal layers.

If the existing pavement is to be resurfaced without milling, then the grade of the CDF shall be finished eighteen (18") inches below the existing pavement surface to allow for a twelve (12") thick layer of compacted gravel borrow (type B) and a six (6") inch thick permanent pavement patch to be installed over the trench. The pavement patch shall consist of a two (2") inch Superpave Intermediate Course, placed over a four (4") inch Superpave Base Course which is to be placed in two (2) equal layers.

A permanent trench patch within the roadway shall be installed by the Contractor immediately following installation of the conduit. The Contractor shall take extra care so as provide a smooth even transition between the top course material within the trench and the adjacent existing roadway pavement. Any deficiencies in the permanent pavement patch, including but not limited to settlement, uneven surface, poor ride quality, shall be repaired by the Contractor with no additional compensation as directed by the Engineer.

Measurement and payment for work under these items shall be made at the unit price per foot as installed, complete in place, which price shall constitute full compensation for all labor, tools, and equipment, for furnishing and installing conduit, fittings, bends, clamps, couplings, all trench excavation (except rock), backfilling, sand borrow, restoration of disturbed areas, joint encasement, de-watering, pull ropes, metallic detectable warning tape and all work necessary for the proper completion of the work specified herewith, as shown on the plans, or as directed by the Engineer.

Excavation of rock encountered in the installation of conduit shall be paid for under Item 144, Class B Rock Excavation.

Controlled density fill for backfill, if required by the Engineer, shall be paid for under Item 153.

<u>ITEM 812.991</u>	<u>HIGHWAY LIGHT POLE FOUNDATION</u>	<u>EACH</u>
----------------------------	---	--------------------

The work to be performed under this item shall conform to the relevant provisions of Section 800 of the Standard Specifications and the following:

Description

The work shall include, but not be limited to, the excavation, removal and disposal of existing soil, the installation of new precast light pole foundations and restoration of pavement surfaces to match existing conditions.

Submittals

Shop drawings shall be provided for all concrete products and light bases.

Materials

General

Materials and products furnished for the work shall be designed for the intended use and shall meet all requirements of the latest edition of the National Electric Code (NEC) and all local codes.

Materials shall be manufactured in accordance with the standards indicated in this section and typical industry standards and codes for the products specified.

The materials used shall be new, unused, and of the best quality for the intended use. All equipment shall have the Manufacturer's name, address, model or type designation, clearly marked thereon

If any equipment or apparatus is damaged, such damage shall be repaired at no additional cost, or replaced at no additional cost, as directed by the Engineer.

Raceways (Conduit)

All conduit shall be in accordance with and provided under Item 804.2, 2 Inch Electrical Conduit Type NM - Plastic - (UL).

Foundations for Highway Lighting Pole with Anchor Base

The Contractor shall provide approved foundations, and other devices as necessary and as required.

Foundations for highway light poles shall be specified by lighting Manufacturer, including number, type and location of anchor bolts. Foundations shall be made of minimum 5,000 psi concrete (at 28 days) and have steel reinforcement meeting ASTM A-615, grade 60 (cover to steel, 1" minimum). Foundations shall have a single 2" RGS conduit embedded in concrete for lighting circuit. Foundations are to be installed with the top of the concrete 2-4 inches above final grade. Anchor bolts shall be 3/4" diameter by 30" long "J-hook" type galvanized steel (4 per foundation). Anchor bolts shall have 65,000 psi minimum tensile strength.

Bolt circle diameter and bolt orientation shall be as shown on the Plans, typically using a 12-inch bolt circle. Exact bolt circle dimensions shall match the anchor base to be installed on foundation. Concrete foundation shall be 24 inches square by six (6'-0") feet high. The Contractor shall confirm bolt circle and bolt orientation before releasing foundations for manufacture.

Construction Methods

General

This Section covers the requirements for installation of materials, proper workmanship, testing, cleaning, grounding, and work methods to be followed by the Contractor. This Section also includes specific instructions and to be used in conjunction with the Plans. Any discrepancies noted between the specification, Plans, and actual installation shall be reported immediately to the Engineer. Failure on the part of the Contractor to report discrepancies immediately shall be considered negligent.

Work shall be coordinated such that systems can be properly located, and conflicts and delays are avoided. Contractor shall consider commencement of work acceptance of existing conditions.

Materials And Workmanship

Work shall be executed in workmanlike manner and shall present neat, rectilinear and mechanical appearance when completed. Material and equipment shall be new and installed according to Manufacturer's recommended best practice so that complete installation shall operate safely and efficiently.

All debris caused by the Contractors' work shall be removed.

Installation of Highway Precast Light Pole Foundations

The Contractor shall remove and existing sidewalk materials, curbing and other masonry to be replaced after the light pole foundation is installed. Existing soil shall be excavated out and disposed of, taking care to not damage surrounding structures, electrical conduits and other utilities. The Contractor shall barricade areas disturbed until fully repaired unless directed otherwise.

New precast light pole foundations shall be installed in locations as shown on the Plans. Conduit to be installed under the provisions of Item 804.20 shall be attached to new light pole foundation conduit sweeps, from adjacent electric handholes to maintain continuity of the conduit system. New light pole foundations shall be installed level and plumb with existing conditions and at appropriate height above finished grade (4 inches maximum).

Repair of Existing Sidewalk

The Contractor shall repair sidewalk in complete panels only if existing sidewalk must be disturbed. All disturbed sidewalk to be restored to match original, pre-construction condition.

Measurement and payment for work under this item shall be at the contract unit bid price per each and shall constitute full compensation for all equipment, labor, materials, set up and incidental costs necessary to furnish and install new light pole foundations, restoration of disturbed sidewalk, and all as described in the previous sections herein or as shown on the plans.

ITEM 813.82

ELECTRIC SERVICE RISER ABANDONED

LUMP SUM

The work to be performed under this item shall conform to the relevant provisions of Section 813 of the Standard Specifications and the following:

General

The work under this item shall consist of disconnecting and abandoning an existing underground utility service connection to utility pole #91 that is to be relocated and/or reset. Work shall be in accordance with the latest edition of the National Electrical Code, Massachusetts Electrical Code, the respective utility company specifications, local codes/guidelines and as directed by the Engineer. All work shall be performed by an experienced licensed electrician licensed in the Commonwealth of Massachusetts.

The service connection shown on the Plans is approximate only. The Contractor shall determine the exact location from the servicing utility.

The Contractor shall coordinate with the local electric utility company for the cutoff. The Contractor is responsible for all fees and permit costs for the work.

The existing underground conduit shall be excavated and exposed for a distance of approximately 20 feet. The existing galvanized riser and sweep at the base of the pole shall be removed and become the property of the Contractor to dispose of in accordance with all applicable regulations.

The work shall include all excavation and backfill, compaction, removal of any existing rigid metal galvanized riser and sweeps, exposed underground conduit, wire, materials, concrete encasement. The work shall also include, at the specified location, removal of meter boxes and all connections for pole mounted equipment.

Any work associated with disconnecting power to the utility's secondary power lines shall be the responsibility of the Contractor to coordinate with the local utility company. The actual time of day or evening for the disconnecting shall be agreed upon between the Engineer, the local power company servicing this location and the property owner/tenant during construction. A representative from the Contractor shall be present when this work is performed. No additional compensation shall be given for this work outside of normal work hours if necessary.

Damage to existing conduit or hardware damaged or lost either directly or indirectly as a result of the Contractor's operations shall be replaced by the Contractor at their own expense.

Method of Measurement

Item 813.82, Electric Service Riser Abandoned, shall be measured for payment per lump sum, complete in place.

Basis of Payment

Item 813.82, Electric Service Riser Abandoned, shall be paid for at the Contract unit price lump sum, which price shall include all labor, materials, equipment and incidental costs required to complete the work.

<u>ITEM 821.11</u>	<u>HIGHWAY LIGHTING POLE (ANCHOR BASE) WITH 6-FOOT BRACKET ARM</u>	<u>EACH</u>
---------------------------	---	--------------------

The work to be performed under this item shall conform to the relevant provisions of Section 820 of the Standard Specifications and the following:

Description

The work shall include, but not be limited to, the installation of highway lighting poles, bracket arms and appropriate grounding. The Contractor shall provide all labor, materials, equipment, tools, supplies and transportation involved in the installation of electrical equipment as specified.

Submittals

Shop drawings shall be provided for the following items:

1. Highway Lighting Pole
2. 6-Foot Bracket Arm

Materials

General

Materials and products furnished shall be designed for the intended use, shall meet all requirements of the latest edition of the National Electric Code (NEC), and all local codes.

Materials shall be manufactured in accordance with the standards indicated in this Section, and typical industry standards and codes for the products specified. Materials and equipment shall be Underwriter's Laboratory (UL) listed.

The materials used shall be new, unused, and of the best quality for the intended use. All equipment shall have the Manufacturer's name, address, model or type designation, serial number and all applicable ratings clearly marked thereon in a location which can be readily observed after installation. The required information should be marked on durable nameplates that are permanently fastened to the equipment.

Electrical equipment shall at all times during construction be adequately protected against mechanical injury or damage by water. Electrical equipment (excluding light poles) shall not be stored outside exposed to the elements. If any equipment or apparatus is damaged, such damage shall be repaired at no additional cost, or replaced at no additional cost as directed by the Engineer.

Wire and Cable

Wire and cable from adjacent handholes to light pole fixtures shall be provided and installed under the provisions of Item 813.40.

Highway Lighting Poles

The Contractor shall provide outdoor highway lighting poles with anchor base and 6-foot bracket arms in locations as shown on the Plans, fully assembled. The Contractor shall Provide approved brackets, and other devices as necessary and as required. Note that light poles with a single arm are to be provided under this Contract. Complete pole assembly shall be compatible with Item 812.991, Highway Light Pole Foundation and Item 823.10, Highway Lighting Luminaire LED. Light Poles shall be provided from MassDOT Highway Division's list of approved Pole Fabricators.

Highway lighting poles shall be galvanized steel (or stainless steel), 35' nominal height, tapered (7" x 5"), in accordance with ASTM A123 (2012), Standard Specification for Hot-Dip Galvanized Coatings on Iron and Steel products made from 6063 Alloy T6 or equal, polished.

- a. **Description:** Lighting posts shall be round tapered galvanized steel (or stainless steel). Provide continuously tapered and seam welded steel lighting standards, conforming to AASHTO LTS-5. Provide steel poles having minimum 11-gauge steel with minimum yield/strength of 55,000 psi and hot-dipped galvanized in accordance with ASTM A123 (iron-oxide) primed and factory finish. Anchor bolts shall be completely hot dip galvanized. Partially galvanized bolts are not acceptable. Light pole tensile strength shall be minimum 48,000 psi. Anchor bolt rating shall be minimum 65,000 psi.
- b. **Dimensions:** Posts shall be 35' in height with a pole base of 11" L x 11" W x 3" H. Posts shall taper from a 7" diameter at the top of the base to a 5" diameter at the post top. The Contractor shall provide post top caps shall be provided, along with plates and fittings to support 6-foot bracket arms. The pole shall have an access door, of minimum dimensions 4" W x 6" H, on one side, with tampered proof hardware (stainless steel). A grounding screw shall be provided inside the base opposite the door. Pole base shall have dimensions compatible with provided concrete foundations.
- c. **Finish:** Posts shall be finished with a zinc-oxide primer and factory finished hot-dip galvanized in accordance with ASTM A123. All exposed hardware shall be stainless steel.

Bracket arms shall be galvanized steel (or stainless steel), with a six (6'-0") foot nominal length.

- a. **Description:** Bracket arms shall be AASTHO approved, galvanized steel (or stainless steel). Provide continuously tapered and seam welded steel lighting standards, conforming to AASHTO LTS-5. Provide arms with minimum yield/strength of 55,000 psi and hot-dipped galvanized in accordance with ASTM A123 (iron-oxide) primed and factory finish. Brackets shall be manufactured to ANSI C136.1 standard.
- b. **Dimensions:** The bracket arms shall be 6' in length, with a fixed tenon of 2-3/8" outside diameter, compatible with the luminaire fixture to be provided under 823.10. Bracket Arm shall be provided with universal galvanized steel (or stainless steel) pole plate for mounting on round tapered pole. Bracket rise shall be 3' nominal on a 6' bracket arm. Bracket arm wall thickness shall be a minimum of 0.125". Tube diameter to be 3" nominal. Dimensions shall be compatible with the tapered light pole.
- c. **Finish:** Posts shall be finished with a zinc-oxide primer and factory finished hot-dip galvanized in accordance with ASTM A123. All exposed hardware shall be stainless steel.

Construction Methods

General

This Section covers the requirements for installation of materials, proper workmanship, testing, cleaning, grounding, and work methods to be followed by the Contractor. This Section also includes specific instructions and to be used in conjunction with the Plans. Any discrepancies noted between the specifications, Plans, and actual installation shall be reported immediately to the Engineer. Failure on the part of the Contractor to report discrepancies immediately shall be considered negligent.

Work shall be coordinated such that systems can be properly located, and conflicts and delays are avoided. Contractor shall consider commencement of work acceptance of existing conditions.

Materials And Workmanship

Work shall be executed in workmanlike manner and shall present neat, rectilinear and mechanical appearance when completed. Material and equipment shall be new and installed according to Manufacturer's recommended best practice so that complete installation shall operate safely and efficiently.

Grounding

Grounding of all highway light poles and fixtures shall be in accordance Section 250 of the latest edition of the National Electrical Code. Equipment bonding conductor shall be installed from branch feeder circuit into adjacent electric handhole and into light pole base. Bonding conductor shall be permanently attached to metal light poles per grounding stud provided by Manufacturer or field installed if not provided.

The Contractor shall perform ground resistance test at each pole location. Should ground resistance be greater than 25 ohms, the Contractor shall provide additional ground rod electrode at pole foundation, in accordance with NEC requirements and re-test to determine if resistance is below 25 ohms. The Contractor shall report all instances where ground resistance is above 25 ohms. All grounding conductors shall be provided with either green outer jacket or green marking tape.

Testing, Inspection and Cleaning

The Contractor shall test all wiring and connections for continuity and grounds before fixtures are connected. Insulation resistance shall be demonstrated by megger test as required at not less than 500 volts. Insulation resistance between conductors and grounds for secondary distribution systems shall meet National Electrical Code (NEC) requirements.

The Contractor shall test lighting fixtures with specified lamps in place for warranty period. They shall replace lamps that fail within warranty period at no cost to the Owner.

Compensation

The cost for all work under this item shall be included in the per unit price and shall constitute full compensation for all equipment, labor, materials, set up and incidental costs necessary to furnish and install light poles, bracket arms, anchor bases, cabling, and all other ancillary labor and materials, all as described in the previous sections herein or as shown on the Plans.

ITEM 823.121 HIGHWAY LIGHTING LUMINAIRE – LED EACH

The work to be performed under this item conform to the relevant portions of Section 820 of the Standard Specifications, the Plans and the following:

Description

The work shall include, but not be limited to, the installation of highway lighting luminaires along with the necessary wiring for connections. Poles, transformer bases, bracket arms and appropriate grounding shall be provided under Item 822.11. The Contractor shall provide all labor, materials, equipment, tools, supplies and transportation involved in the installation of electrical equipment as specified.

Submittals

Shop drawings shall be provided for all LED highway lighting luminaires.

Materials

General

Materials and products furnished shall be designed for the intended use and shall meet all requirements of the latest edition of the National Electric Code (NEC) and all local codes.

Materials shall be manufactured in accordance with the standards indicated in this section and typical industry standards and codes for the products specified. Materials and equipment shall be Underwriter's Laboratory (UL) listed.

The materials used shall be new, unused, and of the best quality for the intended use. All equipment shall have the Manufacturer's name, address, model or type designation, serial number and all applicable ratings clearly marked thereon in a location which can be readily observed after installation. The required information should be marked on durable nameplates that are permanently fastened to the equipment.

Electrical equipment shall at all times during construction be adequately protected against mechanical injury or damage by water. Electrical equipment (excluding light poles) shall not be stored outside exposed to the elements. If any equipment or apparatus is damaged, such damage shall be repaired at no additional cost, or replaced at no additional cost as directed by the Engineer.

Highway Lighting Luminaires

The Contractor shall provide outdoor highway lighting luminaires, 400-watt cobra-head style, with the following specifications:

- a. Voltage rating: 240V single-phase
- b. Wattage based on minimum lumen efficiency of 105 lumens / watt
- c. Lumens: 42000 minimum
- d. LED Type: Type III, IES Distribution
- e. Color Range: 3700K – 5200K (4000K nominal)
- f. Color Rendering Index (CRI): 70
- g. Energy-efficient, High power Factor
- h. Electrical: Multi-Tap 120/208/240/277 volts, factory set for 240V.
- i. Typical housing size: 26" x 13" x 11"
- j. Slip fits: 2-3/8" OD tenon on bracket arm. Shall be compatible with bracket arm provided under Item 822.11.
- k. Electrical Housing: Rugged die-cast aluminum with impact-resistant tempered glass lens and tool-less entry for easy relamping, servicing and weatherproofing. 6063 Alloy T6 or equal aluminum.
- l. Computer engineered aluminum reflector designed for maximum optical efficiency and distribution.
- m. Finish: Standard gray polyester powdercoat.
- n. All exposed hardware shall be stainless steel.
- o. Listings: Underwriters Laboratories (UL & CUL) listed and labeled for wet locations. Shall meet intent of ANSI C136.1 standard.
- p. Manufactured by one of the following:
 - American Electric Lighting (Autobarn Series I & II)
 - Leotek (Green Cobra GC1 & GC2 series)
 - Lumec

- Cooper Industries (Ventus Series)
- Cree Ruud Beta (LEDway, XSP, SLM Street Light Series)

Construction Methods

General

This Section covers the requirements for installation of materials, proper workmanship, testing, cleaning, grounding, and work methods to be followed by the Contractor. This Section also includes specific instructions and to be used in conjunction with the Plans. Any discrepancies noted between the specifications, Plans, and actual installation shall be reported immediately to the Engineer. Failure on the part of the Contractor to report discrepancies immediately will be considered negligent.

Work shall be coordinated such that systems can be properly located, and conflicts and delays are avoided. The Contractor shall consider commencement of work acceptance of existing conditions.

Materials and Workmanship

Work shall be executed in workmanlike manner and shall present neat, rectilinear and mechanical appearance when completed. Material and equipment shall be new and installed according to Manufacturer's recommended best practice so that complete installation shall operate safely and efficiently.

Grounding

Grounding of all highway light fixtures shall be in accordance with Section 250 of the latest edition of the National Electrical Code. All grounding conductors to be provided with either green outer jacket or green marking tape.

Testing, Inspection and Cleaning

The Contractor shall test all wiring and connections for continuity and grounds before fixtures are connected. Insulation resistance shall be demonstrated by megger test as required at not less than 500 volts. Insulation resistance between conductors and grounds for secondary distribution systems shall meet National Electrical Code (NEC) requirements.

The Contractor shall test lighting fixtures with specified lamps in place for warranty period. The Contractor shall replace lamps that fail within warranty period at no cost to owner.

Installation of Lighting Fixtures

The Contractor shall verify construction of light pole foundations is suitable, and provide fixtures, poles, hardware, and other accessories suitable for construction encountered.

The Contractor shall provide (furnish and install) new highway light fixtures. These light fixtures shall be installed on 6-foot bracket arms in locations as indicated on the Plans. The Contractor shall provide necessary field wiring for all light fixtures and receptacles. Light poles shall be installed per Manufacturer's requirements.

The Contractor shall coordinate installation of fixtures with installation of surrounding materials. The Contractor shall investigate lighting fixture locations and foundation supports to ensure that no interference exists between lighting fixtures, supports, and other equipment including that provided by other trades. The Contractor shall report any possible interferences to the Engineer.

The Contractor shall wire and connect ballasts and fixtures per Manufacturer's instruction.

Compensation

The cost for all work under this item shall be included in the per unit price and shall constitute full compensation for all equipment, labor, materials, set up and incidental costs necessary to furnish and install light poles, bracket arms, transformer bases, cabling, and all other ancillary labor and materials, all as described in the previous sections herein or as shown on the Plans.

<u>ITEM 823.61</u>	<u>HIGHWAY LIGHTING LOAD CENTER NO.1</u>	<u>EACH</u>
<u>ITEM 823.62</u>	<u>HIGHWAY LIGHTING LOAD CENTER NO.2</u>	<u>EACH</u>

The work to be performed under these items shall conform to the relevant provisions of Section 820 of the Standard Specifications, the Lighting Plan and the following:

Description

The work shall include, but not be limited to, the installation of electrical underground service conduit, meter sockets, electrical metering and control cabinet, distribution panels, circuit breakers, receptacles, and appropriate grounding. Lighting Load Center Foundations are covered separately under MassDOT Standard Specifications for Highways and Bridges, Section 800.

Submittals

Shop drawings shall be provided for the following items:

1. Conduit
2. Panelboards
3. Service Cabinets and Equipment
4. Meter Sockets
5. Disconnect Switches
6. Circuit Breakers
7. Wiring Devices and Receptacles

Materials

General

Materials and products furnished shall be designed for the intended use shall meet all requirements of the latest edition of the National Electric Code (NEC) and all local codes.

Materials shall be manufactured in accordance with the standards indicated in this Section and typical industry standards and codes for the products specified. Materials and equipment shall be Underwriter's Laboratory (UL) listed.

The materials used shall be new, unused, and of the best quality for the intended use. All equipment shall have the Manufacturer's name, address, model or type designation, serial number and all applicable ratings clearly marked thereon in a location which can be readily observed after installation. The required information should be marked on durable nameplates that are permanently fastened to the equipment.

Electrical equipment shall at all times during construction be adequately protected against mechanical injury or damage by water. Electrical equipment shall not be stored outside exposed to the elements. If any equipment or apparatus is damaged, such damage shall be repaired at no additional cost or replaced at no additional cost as directed by the Engineer.

The Contractor shall obtain all necessary permits and licenses, file necessary plans, and pay all fees for permits and inspections. Permit fees shall be the responsibility of the Contractor as part of their bid.

Wire and Cable

Wire and cable shall be provided and installed under Items 813.40, 813.43 and 813.48.

Raceways (Conduit)

Conduit shall be provided and installed under Items 804.2, 804.3 and 806.3.

Boxes

Outlet and Switch Boxes shall conform to NEMA OS 1.

Pull Boxes, Junction Boxes, and Equipment Enclosures shall conform to NEMA ICS 6.

Pull boxes, junction boxes, and equipment enclosures shall be of NEMA Type 1 construction for indoor use, and NEMA Type 3R construction for outdoor or wet location use, unless otherwise noted.

Box sizes shall not be less than that required by the Massachusetts Electrical Code.

Wiring Devices

Wiring Devices shall conform to NEMA WD 1.

Wiring devices for shall be specification grade, 20-amp, ivory with Type 302 stainless steel plates. Ground fault current interrupter (GFCI) devices shall be provided where specified and/or required by applicable codes.

Panelboards

Panelboards shall conform to NEMA PB1, and UL 67.

Panelboards shall be door-in-door construction with copper bus. Circuit breakers shall be molded case, thermal magnetic, bolt-on type rated as noted, and rated to match panelboard voltage and interrupting rating (22kA minimum). Circuit breakers should be capable of accepting up to #4 AWG wiring.

Panelboard to be 200A, 1-phase, 120/240V with circuit breaker minimum quantities as shown on the Plans. The Contractor shall provide a 200A/2 pole main circuit breaker in panel and sufficient breakers for lighting circuits and receptacle in cabinet.

Meter Sockets

Meter Sockets shall conform to UL 414, UL 486B, and ANSI C12.7.

Outdoor meter sockets are to be NEMA 3R and have vandal-proof covers to protect utility kWh meters (if specified). Unless otherwise noted, meter sockets shall be ringless, with lever bypass, tin plated connections, and have provision for a fifth terminal on single-phase applications.

Meter Socket shall be either heavy duty or medium duty, 200 ampere, ringless, 5 terminal, with approximate dimensions of 19" H x 13" W x 5" D. (Milbank U9319-XL or approved equal). Sockets shall meet local utility requirements.

Highway Lighting Control Center Cabinets

The Contractor shall provide an outdoor NEMA 3R Highway Lighting Control Center Cabinet. The Contractor shall size the cabinet to coordinate with sizes of panelboard and equipment to be installed within said cabinet. Dimensions shown are typical and are for reference only. The cabinet shall include all equipment shown or implied and all equipment shall be installed inside of the cabinet without physical conflicts and per NEC. The cabinet shall be sized for all necessary conduits, whether active, spare or future as listed on panelboard schedules; along with proposed sports lighting contactors.

Cabinets shall be manufactured from 14-gauge minimum stainless steel with 12-gauge steel panel, mounted inside. Cabinets shall have integral keyed locking mechanism, keyed alike, with provision for a padlock. Cabinets shall be ventilated type and factory painted black powder-coat. Cabinets shall be provided with door hold-open latches.

Cabinets shall include an outdoor-rated 200A meter socket mounted on the side of the cabinet to meet local utility requirements. Meter socket shall be 200A, 120/240V, 10kA minimum AIC, NEMA 3R.

Cabinets shall provide the following internal components:

- Duplex GFCI receptacle, white, 20A, with stainless steel cover
- SPST switch, rated 120V, 20A for internal light switch
- 120V, 75W incandescent light fixture in ceramic socket inside of cabinet
- On/Off/Auto selector switch, rated 120V, 10A in NEMA 1 enclosure (2 total)
- Time Clock, 120V, SPST, 20A in NEMA 1 enclosure, with 365-day, 24/7 astronomical digital time. (2 total)
- Lighting contactor, 4-pole, 30A, 240V rated, with 120V AC 10A minimum coil (2 total)
- Photocontrol, 120V, mounted through internal viewing window or drilled hole.
- Thermostat, 120V line voltage control, with 500W, 120V strip heater mounted inside of cabinet.
- Thermostat, 120V line voltage control with 100CFM exhaust fan mounted in cabinet.
- Louver in door with air filter.

Highway Lighting Control Center Cabinet shall be installed on new concrete foundation as shown and as directed. The Contractor shall be responsible for coordinating foundation dimensions to be 6-inches wider than cabinet.

Construction Methods

General

This Section covers the requirements for installation of materials, proper workmanship, testing, cleaning, grounding, and work methods to be followed by the Contractor. This Section also includes specific instructions and to be used in conjunction with the Plans. Any discrepancies noted between the specification, Plans, and actual installation shall be reported immediately. Failure on the part of the Contractor to report discrepancies immediately will be considered negligent.

Work will be coordinated such that systems can be properly located, and conflicts and delays are avoided.

Materials and Workmanship

The Contractor's work shall be executed in workmanlike manner and shall present neat, rectilinear and mechanical appearance when completed. Materials and equipment shall be new and installed according to Manufacturer's recommended best practice so that complete installation shall operate safely and efficiently.

Testing, Inspection and Cleaning

The Contractor shall test all wiring and connections for continuity and grounds before fixtures are connected. Insulation resistance shall be demonstrated by megger test as required at not less than 500 volts. Insulation resistance between conductors and grounds for secondary distribution systems shall meet National Electrical Code (NEC) requirements.

Grounding

The Contractor shall ensure bond and ground equipment and systems connected under this Section are in accordance with standards of the NEC and other applicable regulations and codes.

The Conduit system shall be electrically continuous throughout, grounded at service entrance. Equipment frames, enclosures, boxes, etc. shall be grounded by use of green-jacketed (or bare copper) ground, sized as per Table 250-95 of the NEC.

Green bonding jumper shall be installed in flexible conduits.

Copper fittings for ground connections shall conform to the requirements of ASTM B 30. All bolts, u-bolts, cap screws, nuts, and lock washers for copper fitting shall be of approved corrosion-resisting material.

Ground Rods shall be furnished and installed under Item 813.71. Bonding connections to ground rods shall be permanent, welded or crimped, with copper connectors. All wire used for grounding shall be no smaller than #4 AWG copper stranded conductor.

Electrical Metering Control Cabinet Installation

The Contractor shall provide a new outdoor NEMA 3R stainless steel Highway Lighting Control Center Cabinet (factory painted color: black), with 200-amp, 5 terminal, meter socket mounted on the side of meter cabinet as indicated on the Plans. The Contractor shall coordinate the incoming underground 200-amp service from the utility to the new Highway Lighting Control Center Cabinet. The Cabinet must be factory painted black by the Manufacturer; field painting is not acceptable.

Compensation

The cost for all work under this item shall be included in the per unit price and shall constitute full compensation for all equipment, labor, materials, set up and incidental costs necessary to furnish and install new Highway Lighting Control Center Cabinet, electrical service, meter socket, panelboard and all other accessories and other ancillary labor and materials, all as described in the previous sections herein or as shown on the Pans.

ITEM 859.1

REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS

EACH

The work to be performed under this item shall conform to the relevant provisions of Section 850 of the Standard Specifications and the following:

Work under this item consists of furnishing, installing, maintaining in proper operating conditions, and removing reflectorized drums, and any necessary ballast, equipped with sequential flashing warning lights.

Materials

Reflectorized drums shall be listed on the MassDOT Qualified Traffic Control Equipment List.

Reflective sheeting on drums shall meet or exceed ASTM D4956 Type VIII. All drums shall be maintained in a satisfactory manner including the removal of oils, dirt, and debris that may cause reduced retroreflectivity.

The Contractor shall use one of the following sequential flashing warning light systems unless otherwise approved by the Engineer:

1. Empco-Lite LWCSD.
2. pi-Lit® Sequential Barricade-Style Lamp; or
3. Unipart Dorman SynchroGUIDE.

Sequential flashing warning lights shall be secured to reflectorized drums per the light manufacturer's specifications.

Construction Methods

The first ten (10) drums in any merging or shifting taper as designated in the Temporary Traffic Control Plan shall be equipped with sequential flashing warning lights. These lights shall be operating, at a minimum, between dusk and dawn when the taper is deployed.

The successive flashing of the sequential warning lights shall occur from the upstream end of the merging or shifting taper to the downstream end of the taper in order to identify the desired vehicle path. Each warning light in the sequence shall be flashed at a rate of not less than 55, nor more than 75 times per minute.

Warning lights shall be powered off when drums are not deployed in a taper.

Method of Measurement

A group of ten (10) reflectorized drums with sequential flashing warning lights shall be considered one (1) unit and will be measured by the day. Each period of up to 24 hours during which this unit is in use will be measured as one day regardless of the number of times that the drums are positioned, repositioned, removed, or returned to service.

Basis of Payment

Item 859., Reflectorized Drums with Sequential Flashing Warning Lights, shall be paid for at the contract unit price per day, which shall include full compensation for furnishing, positioning, repositioning, and removing the group of ten (10) drums as directed by the Engineer.

<u>ITEM 864.04</u>	<u>PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC)</u>	<u>SQUARE FOOT</u>
---------------------------	---	---------------------------

The work to be performed under this item shall conform to the relevant provisions of Section 860 of the Standard Specifications and the following:

For estimating purposes, the sizes of all arrows, legends and symbols shall be as follows:

<u>Arrow, Legend or Symbol</u>	<u>Area for Estimating Purposes</u>
Straight Arrow	12.0 Square Feet
Right or Left Arrow	16.0 Square Feet
Combination Straight/Turn Arrow	27.0 Square Feet
“ONLY” Legend	30.0 Square Feet
Shared Use Lane (Sharrow)	9.0 Square Feet

The Contractor shall furnish and place white arrows and legends (“ONLY”) at locations indicated on the plans and as directed by the Engineer. The size of the arrows and legends shall conform to MassDOT standards with the left and right arrows covering approximately 16 square feet and the word "ONLY" covering approximately 30 square feet. The combined straight through arrow and left or right turn arrow has been estimated to cover 27 square feet. The shared use lane (sharrow) marking has been estimated to cover 9 square feet.

Yield line markings shall be included under this item.

Measurement and payment for work under this item shall be paid for at the contract unit bid price per square foot, which price shall include full compensation for all labor, materials, equipment, and incidentals necessary to complete the work to the satisfaction of the Engineer.

<u>ITEM 874.2</u>	<u>TRAFFIC SIGN REMOVED AND RESET</u>	<u>EACH</u>
--------------------------	--	--------------------

The work to be performed under this item shall conform to the relevant provisions of Section 828 of the Standard Specifications and the following:

The Contractor shall carefully remove all existing signs, attachment hardware, and sign support posts to be reset as shown on the plans and as directed by the Engineer.

Signs to be removed and reset under this item shall include warning, regulatory, route marking, parking and miscellaneous directional signs.

Signs and attachment hardware shall be satisfactorily stored and protected until reset in the proposed work. Existing support posts shall become the property of the Contractor and shall be disposed of off -site.

Signs and attachment hardware lost, damaged or otherwise made unsuitable for reuse while being removed, transported, stored or reset shall be replaced with new material at no additional cost. New attachment hardware shall be furnished and installed as necessary to replace any missing or unusable existing hardware.

Method of Measurement

Item 874.2 shall be measured for payment per each sign removed and reinstalled.

Basis of Payment

Item 874.2 shall be paid for at the contract unit price per each sign post removed, temporarily stored and reset at the appropriate time and condition to prevent any damage to the sign and post, which price shall be full compensation for all labor, materials, equipment and incidental costs required to complete the work.

New signposts required for reinstallation of signs shall be paid for under Item 847.1.

No separate payments shall be made for all excavation including class "B" rock excavation, gravel backfill compaction and restoration work, but all costs in connection therewith shall be included in the price bid.

<u>ITEM 874.4</u>	<u>TRAFFIC SIGN REMOVED AND STACKED</u>	<u>EACH</u>
--------------------------	--	--------------------

The work to be performed under this item shall conform to the relevant provisions of Section 850 of the Standard Specifications and the following:

The work shall consist of removing and stacking existing regulatory, warning and directional signs and supports. Signs and attached hardware shall be carefully removed from their supports. The supports and existing foundations shall be removed to a depth of at least six (6") inches below the existing ground and the holes backfilled with gravel. The surface shall be patched with a material to match the existing ground or as directed by the Engineer.

The signs and supports shall be removed and temporarily stacked in a stockpile on the site for removal by the Town/Owner. The Contractor shall be responsible for the signs and shall replace or repair any damage due to their operations with no additional compensation. Signs not required by the Town shall be removed and discarded by the Contractor away from the site.

If signs are attached to existing light poles, utility poles or traffic poles, only the sign and attached hardware shall be removed and stacked.

Method of Measurement

Item 874.4 shall be measured for payment per each sign removed and stacked.

Basis of Payment

Item 874.4 shall be paid for at the contract unit price per each, which price shall be full compensation for all labor, materials, equipment and incidental costs required to complete the work.

No separate payments shall be made for all excavation including class "B" rock excavation, gravel backfill compaction and restoration work, but all costs in connection therewith shall be included in the price bid.

<u>ITEM 999.</u>	<u>TRAFFIC POLICE</u>	<u>ALLOWANCE</u>
-------------------------	------------------------------	-------------------------

The Town of Uxbridge shall reimburse the Contractor for the cost of traffic police details. The Town shall coordinate detail assignments that will be billed to the Contractor directly based on the hourly cost. The Contractor shall not be reimbursed for the cost of police details if cancelled without required notice and minimum charge results. A budget number has been included in the bid form. This budget number represents an estimated cost only. The Contractor shall be reimbursed for the actual cost and not the budget number.

END OF DOCUMENT

**DOCUMENT 0600
PREVAILING WAGE RATES**



**THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS**

CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

ROSLIN ACOSTA
Secretary
MICHAEL FLANAGAN
Director

Awarding Authority:	Town of Uxbridge
Contract Number:	2022-14
Description of Work:	Reconstruction of Douglas Street (Route 16) in the Town of Uxbridge, MA for an approximate length of 2,350 feet, including the construction of two (2) roundabouts at the Route 16/Route 146 interchange
Job Location:	Douglas Street (Route 16) at Route 146

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the “Wage Request Number” on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule from the Department of Labor Standards (“DLS”) if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Department of Labor Standards, Division of Apprentice Standards (DLS/DAS). Apprentice must keep his/her apprentice identification card on his/her person during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DLS/DAS regardless of whether or not they are registered with any other federal, state, local, or private agency must be paid the journeyworker's rate for the trade.**
- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule. Awarding authorities are required to request these updates no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F “rental of equipment” contracts.
- Every contractor or subcontractor which performs construction work on the project is required to submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee’s name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction							
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>		12/01/2021	\$35.95	\$13.41	\$16.01	\$0.00	\$65.37
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>		12/01/2021	\$36.02	\$13.41	\$16.01	\$0.00	\$65.44
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>		12/01/2021	\$36.14	\$13.41	\$16.01	\$0.00	\$65.56
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>		08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"							
AIR TRACK OPERATOR <i>LABORERS - ZONE 2</i>		12/01/2021	\$36.16	\$9.10	\$16.64	\$0.00	\$61.90
		06/01/2022	\$37.06	\$9.10	\$16.64	\$0.00	\$62.80
		12/01/2022	\$37.91	\$9.10	\$16.64	\$0.00	\$63.65
		06/01/2023	\$38.81	\$9.10	\$16.64	\$0.00	\$64.55
		12/01/2023	\$39.71	\$9.10	\$16.64	\$0.00	\$65.45
For apprentice rates see "Apprentice- LABORER"							
AIR TRACK OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>		12/01/2021	\$36.16	\$9.10	\$16.64	\$0.00	\$61.90
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASBESTOS WORKER (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)</i>		12/01/2020	\$38.10	\$12.80	\$9.45	\$0.00	\$60.35
ASPHALT RAKER <i>LABORERS - ZONE 2</i>		12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
		06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
		12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
		06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
		12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"							
ASPHALT RAKER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>		12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"							
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>		12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>		12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"							
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 2</i>		12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
		06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
		12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
		06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
		12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"							
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 2</i>		12/01/2021	\$36.16	\$9.10	\$16.64	\$0.00	\$61.90
		06/01/2022	\$37.06	\$9.10	\$16.64	\$0.00	\$62.80
		12/01/2022	\$37.91	\$9.10	\$16.64	\$0.00	\$63.65
		06/01/2023	\$38.81	\$9.10	\$16.64	\$0.00	\$64.55
		12/01/2023	\$39.71	\$9.10	\$16.64	\$0.00	\$65.45
For apprentice rates see "Apprentice- LABORER"							

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY)	12/01/2021	\$36.16	\$9.10	\$16.64	\$0.00	\$61.90
<i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>						
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
BOILER MAKER BOILERMAKERS LOCAL 29	01/01/2020	\$46.10	\$7.07	\$17.98	\$0.00	\$71.15

Apprentice - BOILERMAKER - Local 29

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
2	65	\$29.97	\$7.07	\$11.69	\$0.00	\$48.73
3	70	\$32.27	\$7.07	\$12.59	\$0.00	\$51.93
4	75	\$34.58	\$7.07	\$13.49	\$0.00	\$55.14
5	80	\$36.88	\$7.07	\$14.38	\$0.00	\$58.33
6	85	\$39.19	\$7.07	\$15.29	\$0.00	\$61.55
7	90	\$41.49	\$7.07	\$16.18	\$0.00	\$64.74
8	95	\$43.80	\$7.07	\$17.09	\$0.00	\$67.96

Notes:

Apprentice to Journeyworker Ratio:1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) BRICKLAYERS LOCAL 3 (WORCESTER)	02/01/2022	\$55.01	\$11.39	\$21.65	\$0.00	\$88.05
--	------------	---------	---------	---------	--------	---------

Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Worcester

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.51	\$11.39	\$21.65	\$0.00	\$60.55
2	60	\$33.01	\$11.39	\$21.65	\$0.00	\$66.05
3	70	\$38.51	\$11.39	\$21.65	\$0.00	\$71.55
4	80	\$44.01	\$11.39	\$21.65	\$0.00	\$77.05
5	90	\$49.51	\$11.39	\$21.65	\$0.00	\$82.55

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER OPERATING ENGINEERS LOCAL 4	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
---	------------	---------	---------	---------	--------	---------

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN LABORERS - FOUNDATION AND MARINE	12/01/2021	\$42.33	\$9.10	\$17.72	\$0.00	\$69.15
---	------------	---------	--------	---------	--------	---------

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING LABORER LABORERS - FOUNDATION AND MARINE	12/01/2021	\$41.18	\$9.10	\$17.72	\$0.00	\$68.00
--	------------	---------	--------	---------	--------	---------

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- LABORER"							
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>		12/01/2021	\$41.18	\$9.10	\$17.72	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"							
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 2</i>		12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
		06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
		12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
		06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
		12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"							
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>		09/01/2021	\$44.18	\$8.58	\$19.82	\$0.00	\$72.58
		03/01/2022	\$44.78	\$8.58	\$19.82	\$0.00	\$73.18
		09/01/2022	\$45.43	\$8.58	\$19.82	\$0.00	\$73.83
		03/01/2023	\$46.03	\$8.58	\$19.82	\$0.00	\$74.43

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.09	\$8.58	\$1.70	\$0.00	\$32.37
2	60	\$26.51	\$8.58	\$1.70	\$0.00	\$36.79
3	70	\$30.93	\$8.58	\$14.63	\$0.00	\$54.14
4	75	\$33.14	\$8.58	\$14.63	\$0.00	\$56.35
5	80	\$35.34	\$8.58	\$16.36	\$0.00	\$60.28
6	80	\$35.34	\$8.58	\$16.36	\$0.00	\$60.28
7	90	\$39.76	\$8.58	\$18.09	\$0.00	\$66.43
8	90	\$39.76	\$8.58	\$18.09	\$0.00	\$66.43

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.39	\$8.58	\$1.70	\$0.00	\$32.67
2	60	\$26.87	\$8.58	\$1.70	\$0.00	\$37.15
3	70	\$31.35	\$8.58	\$14.63	\$0.00	\$54.56
4	75	\$33.59	\$8.58	\$14.63	\$0.00	\$56.80
5	80	\$35.82	\$8.58	\$16.36	\$0.00	\$60.76
6	80	\$35.82	\$8.58	\$16.36	\$0.00	\$60.76
7	90	\$40.30	\$8.58	\$18.09	\$0.00	\$66.97
8	90	\$40.30	\$8.58	\$18.09	\$0.00	\$66.97

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
Step 1&2 \$30.19/ 3&4 \$36.28/ 5&6 \$55.87/ 7&8 \$62.01

Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME <i>CARPENTERS-ZONE 3 (Wood Frame)</i>	04/01/2021	\$23.16	\$7.21	\$4.80	\$0.00	\$35.17
	04/01/2022	\$23.66	\$7.21	\$4.80	\$0.00	\$35.67
	04/01/2023	\$24.16	\$7.21	\$4.80	\$0.00	\$36.17

All Aspects of New Wood Frame Work

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - CARPENTER (Wood Frame) - Zone 3

Effective Date - 04/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$13.90	\$7.21	\$0.00	\$0.00	\$21.11
2	60	\$13.90	\$7.21	\$0.00	\$0.00	\$21.11
3	65	\$15.05	\$7.21	\$0.00	\$0.00	\$22.26
4	70	\$16.21	\$7.21	\$0.00	\$0.00	\$23.42
5	75	\$17.37	\$7.21	\$3.80	\$0.00	\$28.38
6	80	\$18.53	\$7.21	\$3.80	\$0.00	\$29.54
7	85	\$19.69	\$7.21	\$3.80	\$0.00	\$30.70
8	90	\$20.84	\$7.21	\$3.80	\$0.00	\$31.85

Effective Date - 04/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$14.20	\$7.21	\$0.00	\$0.00	\$21.41
2	60	\$14.20	\$7.21	\$0.00	\$0.00	\$21.41
3	65	\$15.38	\$7.21	\$0.00	\$0.00	\$22.59
4	70	\$16.56	\$7.21	\$0.00	\$0.00	\$23.77
5	75	\$17.75	\$7.21	\$3.80	\$0.00	\$28.76
6	80	\$18.93	\$7.21	\$3.80	\$0.00	\$29.94
7	85	\$20.11	\$7.21	\$3.80	\$0.00	\$31.12
8	90	\$21.29	\$7.21	\$3.80	\$0.00	\$32.30

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80

Step 1&2 \$17.63/ 3&4 \$19.95/ 5&6 \$27.22/ 7&8 \$29.54

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 (WORCESTER)	01/01/2020	\$47.14	\$12.75	\$22.41	\$0.62	\$82.92
--	------------	---------	---------	---------	--------	---------

Apprentice - CEMENT MASONRY/PLASTERING - Worcester

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.57	\$12.75	\$15.41	\$0.00	\$51.73
2	60	\$28.28	\$12.75	\$17.41	\$0.62	\$59.06
3	65	\$30.64	\$12.75	\$18.41	\$0.62	\$62.42
4	70	\$33.00	\$12.75	\$19.41	\$0.62	\$65.78
5	75	\$35.36	\$12.75	\$20.41	\$0.62	\$69.14
6	80	\$37.71	\$12.75	\$21.41	\$0.62	\$72.49
7	90	\$42.43	\$12.75	\$22.41	\$0.62	\$78.21

Notes:

Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
	06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
	12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
	06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
	12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$52.38	\$14.00	\$16.05	\$0.00	\$82.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$33.69	\$14.00	\$16.05	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2022	\$53.66	\$8.65	\$23.05	\$0.00	\$85.36
	07/01/2022	\$54.86	\$8.65	\$23.05	\$0.00	\$86.56
	01/01/2023	\$56.06	\$8.65	\$23.05	\$0.00	\$87.76
	07/01/2023	\$57.26	\$8.65	\$23.05	\$0.00	\$88.96
	01/01/2024	\$58.46	\$8.65	\$23.05	\$0.00	\$90.16
	07/01/2024	\$59.66	\$8.65	\$23.05	\$0.00	\$91.36
	01/01/2025	\$60.86	\$8.65	\$23.05	\$0.00	\$92.56

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.83	\$8.65	\$0.00	\$0.00	\$35.48
2	55	\$29.51	\$8.65	\$6.27	\$0.00	\$44.43
3	60	\$32.20	\$8.65	\$6.84	\$0.00	\$47.69
4	65	\$34.88	\$8.65	\$7.41	\$0.00	\$50.94
5	70	\$37.56	\$8.65	\$19.63	\$0.00	\$65.84
6	75	\$40.25	\$8.65	\$20.20	\$0.00	\$69.10
7	80	\$42.93	\$8.65	\$20.77	\$0.00	\$72.35
8	90	\$48.29	\$8.65	\$21.91	\$0.00	\$78.85

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.43	\$8.65	\$0.00	\$0.00	\$36.08
2	55	\$30.17	\$8.65	\$6.27	\$0.00	\$45.09
3	60	\$32.92	\$8.65	\$6.84	\$0.00	\$48.41
4	65	\$35.66	\$8.65	\$7.41	\$0.00	\$51.72
5	70	\$38.40	\$8.65	\$19.63	\$0.00	\$66.68
6	75	\$41.15	\$8.65	\$20.20	\$0.00	\$70.00
7	80	\$43.89	\$8.65	\$20.77	\$0.00	\$73.31
8	90	\$49.37	\$8.65	\$21.91	\$0.00	\$79.93

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN LABORERS - ZONE 2	12/01/2021	\$41.33	\$9.10	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	12/01/2023	\$45.58	\$9.10	\$17.57	\$0.00	\$72.25

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 2	12/01/2021	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	06/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	12/01/2022	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	06/01/2023	\$45.33	\$9.10	\$17.57	\$0.00	\$72.00
	12/01/2023	\$46.58	\$9.10	\$17.57	\$0.00	\$73.25

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS LABORERS - ZONE 2	12/01/2021	\$42.08	\$9.10	\$17.57	\$0.00	\$68.75
	06/01/2022	\$43.08	\$9.10	\$17.57	\$0.00	\$69.75
	12/01/2022	\$44.08	\$9.10	\$17.57	\$0.00	\$70.75
	06/01/2023	\$45.08	\$9.10	\$17.57	\$0.00	\$71.75
	12/01/2023	\$46.33	\$9.10	\$17.57	\$0.00	\$73.00

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 2</i>	12/01/2021	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	06/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	12/01/2022	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	06/01/2023	\$45.33	\$9.10	\$17.57	\$0.00	\$72.00
	12/01/2023	\$46.58	\$9.10	\$17.57	\$0.00	\$73.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2021	\$42.08	\$9.10	\$17.57	\$0.00	\$68.75
	06/01/2022	\$43.08	\$9.10	\$17.57	\$0.00	\$69.75
	12/01/2022	\$44.08	\$9.10	\$17.57	\$0.00	\$70.75
	06/01/2023	\$45.08	\$9.10	\$17.57	\$0.00	\$71.75
	12/01/2023	\$46.33	\$9.10	\$17.57	\$0.00	\$73.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 2</i>	12/01/2021	\$41.33	\$9.10	\$17.57	\$0.00	\$68.00
	06/01/2022	\$42.33	\$9.10	\$17.57	\$0.00	\$69.00
	12/01/2022	\$43.33	\$9.10	\$17.57	\$0.00	\$70.00
	06/01/2023	\$44.33	\$9.10	\$17.57	\$0.00	\$71.00
	12/01/2023	\$45.58	\$9.10	\$17.57	\$0.00	\$72.25
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$68.70	\$9.40	\$23.12	\$0.00	\$101.22
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$49.07	\$9.40	\$23.12	\$0.00	\$81.59
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$73.60	\$9.40	\$23.12	\$0.00	\$106.12
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 2)</i>	08/01/2020	\$103.05	\$9.40	\$23.12	\$0.00	\$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) <i>DRAWBRIDGE - SEIU LOCAL 888</i>	07/01/2020	\$26.77	\$6.67	\$3.93	\$0.16	\$37.53
ELECTRICIAN <i>ELECTRICIANS LOCAL 96</i>	09/05/2021	\$45.01	\$11.57	\$17.42	\$0.00	\$74.00
	09/04/2022	\$45.59	\$12.20	\$17.50	\$0.00	\$75.29

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - ELECTRICIAN - Local 96

Effective Date - 09/05/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$18.00	\$11.57	\$0.54	\$0.00	\$30.11
2	43	\$19.35	\$11.57	\$0.58	\$0.00	\$31.50
3	48	\$21.60	\$11.57	\$14.15	\$0.00	\$47.32
4	55	\$24.76	\$11.57	\$14.58	\$0.00	\$50.91
5	65	\$29.26	\$11.57	\$15.22	\$0.00	\$56.05
6	80	\$36.01	\$11.57	\$16.16	\$0.00	\$63.74

Effective Date - 09/04/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$18.24	\$12.20	\$0.55	\$0.00	\$30.99
2	43	\$19.60	\$12.20	\$0.59	\$0.00	\$32.39
3	48	\$21.88	\$12.20	\$14.18	\$0.00	\$48.26
4	55	\$25.07	\$12.20	\$14.63	\$0.00	\$51.90
5	65	\$29.63	\$12.20	\$15.27	\$0.00	\$57.10
6	80	\$36.47	\$12.20	\$16.22	\$0.00	\$64.89

Notes:

Steps 1-2 are 1000 hrs; Steps 3-6 are 1500 hrs.

Apprentice to Journeyworker Ratio:2:3***

ELEVATOR CONSTRUCTOR <i>ELEVATOR CONSTRUCTORS LOCAL 41</i>	01/01/2022	\$58.62	\$16.03	\$20.21	\$0.00	\$94.86
---	------------	---------	---------	---------	--------	---------

Apprentice - ELEVATOR CONSTRUCTOR - Local 41

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$29.31	\$16.03	\$0.00	\$0.00	\$45.34
2	55	\$32.24	\$16.03	\$20.21	\$0.00	\$68.48
3	65	\$38.10	\$16.03	\$20.21	\$0.00	\$74.34
4	70	\$41.03	\$16.03	\$20.21	\$0.00	\$77.27
5	80	\$46.90	\$16.03	\$20.21	\$0.00	\$83.14

Notes:

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER <i>ELEVATOR CONSTRUCTORS LOCAL 41</i>	01/01/2022	\$41.03	\$16.03	\$20.21	\$0.00	\$77.27
--	------------	---------	---------	---------	--------	---------

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
--	------------	---------	--------	---------	--------	---------

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2021	\$46.53	\$13.75	\$15.80	\$0.00	\$76.08
	05/01/2022	\$47.86	\$13.75	\$15.80	\$0.00	\$77.41
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2021	\$48.06	\$13.75	\$15.80	\$0.00	\$77.61
	05/01/2022	\$49.22	\$13.75	\$15.80	\$0.00	\$78.77
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	11/01/2021	\$23.16	\$13.75	\$15.80	\$0.00	\$52.71
	05/01/2022	\$23.83	\$13.75	\$15.80	\$0.00	\$53.38
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 96</i>	09/05/2021	\$45.01	\$11.57	\$17.42	\$0.00	\$74.00
	09/04/2022	\$45.59	\$12.20	\$17.50	\$0.00	\$75.29
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINT/COMMISSIONING <i>ELECTRICIANS LOCAL 96</i>	09/05/2021	\$45.01	\$11.57	\$17.42	\$0.00	\$74.00
	09/04/2022	\$45.59	\$12.20	\$17.50	\$0.00	\$75.29
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$41.76	\$14.00	\$16.05	\$0.00	\$71.81
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	12/01/2021	\$24.50	\$9.10	\$16.64	\$0.00	\$50.24
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
FLOORCOVERER <i>FLOORCOVERERS LOCAL 2168 ZONE II</i>	09/01/2021	\$47.07	\$8.58	\$20.12	\$0.00	\$75.77
	03/01/2022	\$47.87	\$8.58	\$20.12	\$0.00	\$76.57

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - FLOORCOVERER - Local 2168 Zone II

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.54	\$8.58	\$1.79	\$0.00	\$33.91
2	55	\$25.89	\$8.58	\$1.79	\$0.00	\$36.26
3	60	\$28.24	\$8.58	\$14.75	\$0.00	\$51.57
4	65	\$30.60	\$8.58	\$14.75	\$0.00	\$53.93
5	70	\$32.95	\$8.58	\$16.54	\$0.00	\$58.07
6	75	\$35.30	\$8.58	\$16.54	\$0.00	\$60.42
7	80	\$37.66	\$8.58	\$18.33	\$0.00	\$64.57
8	85	\$40.01	\$8.58	\$18.33	\$0.00	\$66.92

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.94	\$8.58	\$1.79	\$0.00	\$34.31
2	55	\$26.33	\$8.58	\$1.79	\$0.00	\$36.70
3	60	\$28.72	\$8.58	\$14.75	\$0.00	\$52.05
4	65	\$31.12	\$8.58	\$14.75	\$0.00	\$54.45
5	70	\$33.51	\$8.58	\$16.54	\$0.00	\$58.63
6	75	\$35.90	\$8.58	\$16.54	\$0.00	\$61.02
7	80	\$38.30	\$8.58	\$18.33	\$0.00	\$65.21
8	85	\$40.69	\$8.58	\$18.33	\$0.00	\$67.60

Notes: Steps are 750 hrs.

% After 10/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)

Step 1&2 \$31.55/ 3&4 \$37.99/ 5&6 \$58.07/ 7&8 \$64.57

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATOR/LIGHTING PLANT/HEATERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$33.69	\$14.00	\$16.05	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) <i>GLAZIERS LOCAL 35 (ZONE 2)</i>	01/01/2022	\$43.16	\$8.65	\$23.05	\$0.00	\$74.86
	07/01/2022	\$44.36	\$8.65	\$23.05	\$0.00	\$76.06
	01/01/2023	\$45.56	\$8.65	\$23.05	\$0.00	\$77.26
	07/01/2023	\$46.76	\$8.65	\$23.05	\$0.00	\$78.46
	01/01/2024	\$47.96	\$8.65	\$23.05	\$0.00	\$79.66
	07/01/2024	\$49.16	\$8.65	\$23.05	\$0.00	\$80.86
	01/01/2025	\$50.36	\$8.65	\$23.05	\$0.00	\$82.06

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - GLAZIER - Local 35 Zone 2

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.58	\$8.65	\$0.00	\$0.00	\$30.23
2	55	\$23.74	\$8.65	\$6.27	\$0.00	\$38.66
3	60	\$25.90	\$8.65	\$6.84	\$0.00	\$41.39
4	65	\$28.05	\$8.65	\$7.41	\$0.00	\$44.11
5	70	\$30.21	\$8.65	\$19.63	\$0.00	\$58.49
6	75	\$32.37	\$8.65	\$20.20	\$0.00	\$61.22
7	80	\$34.53	\$8.65	\$20.77	\$0.00	\$63.95
8	90	\$38.84	\$8.65	\$21.91	\$0.00	\$69.40

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.18	\$8.65	\$0.00	\$0.00	\$30.83
2	55	\$24.40	\$8.65	\$6.27	\$0.00	\$39.32
3	60	\$26.62	\$8.65	\$6.84	\$0.00	\$42.11
4	65	\$28.83	\$8.65	\$7.41	\$0.00	\$44.89
5	70	\$31.05	\$8.65	\$19.63	\$0.00	\$59.33
6	75	\$33.27	\$8.65	\$20.20	\$0.00	\$62.12
7	80	\$35.49	\$8.65	\$20.77	\$0.00	\$64.91
8	90	\$39.92	\$8.65	\$21.91	\$0.00	\$70.48

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS OPERATING ENGINEERS LOCAL 4	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
--	------------	---------	---------	---------	--------	---------

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Worcester

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.25	\$13.80	\$12.42	\$0.00	\$49.47
2	60	\$27.90	\$13.80	\$13.36	\$0.00	\$55.06
3	70	\$32.55	\$13.80	\$14.31	\$0.00	\$60.66
4	80	\$37.20	\$13.80	\$15.25	\$0.00	\$66.25

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.48	\$13.80	\$12.42	\$0.00	\$50.70
2	60	\$29.37	\$13.80	\$13.36	\$0.00	\$56.53
3	70	\$34.27	\$13.80	\$14.31	\$0.00	\$62.38
4	80	\$39.16	\$13.80	\$15.25	\$0.00	\$68.21

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER IRONWORKERS LOCAL 7 (WORCESTER AREA)	09/16/2020	\$48.36	\$8.10	\$25.10	\$0.00	\$81.56
---	------------	---------	--------	---------	--------	---------

Apprentice - IRONWORKER - Local 7 Worcester

Effective Date - 09/16/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$29.02	\$8.10	\$25.10	\$0.00	\$62.22
2	70	\$33.85	\$8.10	\$25.10	\$0.00	\$67.05
3	75	\$36.27	\$8.10	\$25.10	\$0.00	\$69.47
4	80	\$38.69	\$8.10	\$25.10	\$0.00	\$71.89
5	85	\$41.11	\$8.10	\$25.10	\$0.00	\$74.31
6	90	\$43.52	\$8.10	\$25.10	\$0.00	\$76.72

Notes:

Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:

JACKHAMMER & PAVING BREAKER OPERATOR LABORERS - ZONE 2	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
	06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
	12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
	06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
	12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95

For apprentice rates see "Apprentice- LABORER"

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER		12/01/2021	\$35.41	\$9.10	\$16.64	\$0.00	\$61.15
LABORERS - ZONE 2		06/01/2022	\$36.31	\$9.10	\$16.64	\$0.00	\$62.05
		12/01/2022	\$37.16	\$9.10	\$16.64	\$0.00	\$62.90
		06/01/2023	\$38.06	\$9.10	\$16.64	\$0.00	\$63.80
		12/01/2023	\$38.96	\$9.10	\$16.64	\$0.00	\$64.70

Apprentice - LABORER - Zone 2

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$21.25	\$9.10	\$16.64	\$0.00	\$46.99
2	70	\$24.79	\$9.10	\$16.64	\$0.00	\$50.53
3	80	\$28.33	\$9.10	\$16.64	\$0.00	\$54.07
4	90	\$31.87	\$9.10	\$16.64	\$0.00	\$57.61

Effective Date - 06/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$21.79	\$9.10	\$16.64	\$0.00	\$47.53
2	70	\$25.42	\$9.10	\$16.64	\$0.00	\$51.16
3	80	\$29.05	\$9.10	\$16.64	\$0.00	\$54.79
4	90	\$32.68	\$9.10	\$16.64	\$0.00	\$58.42

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER (HEAVY & HIGHWAY)	12/01/2021	\$35.41	\$9.10	\$16.64	\$0.00	\$61.15
<i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>						

Apprentice - LABORER (Heavy & Highway) - Zone 2

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$21.25	\$9.10	\$16.64	\$0.00	\$46.99
2	70	\$24.79	\$9.10	\$16.64	\$0.00	\$50.53
3	80	\$28.33	\$9.10	\$16.64	\$0.00	\$54.07
4	90	\$31.87	\$9.10	\$16.64	\$0.00	\$57.61

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER	12/01/2021	\$35.41	\$9.10	\$16.64	\$0.00	\$61.15
<i>LABORERS - ZONE 2</i>						
	06/01/2022	\$36.31	\$9.10	\$16.64	\$0.00	\$62.05
	12/01/2022	\$37.16	\$9.10	\$16.64	\$0.00	\$62.90
	06/01/2023	\$38.06	\$9.10	\$16.64	\$0.00	\$63.80
	12/01/2023	\$38.96	\$9.10	\$16.64	\$0.00	\$64.70

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: CEMENT FINISHER TENDER <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.41	\$9.10	\$16.64	\$0.00	\$61.15
	06/01/2022	\$36.31	\$9.10	\$16.64	\$0.00	\$62.05
	12/01/2022	\$37.16	\$9.10	\$16.64	\$0.00	\$62.90
	06/01/2023	\$38.06	\$9.10	\$16.64	\$0.00	\$63.80
	12/01/2023	\$38.96	\$9.10	\$16.64	\$0.00	\$64.70
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.50	\$9.10	\$16.70	\$0.00	\$61.30
	06/01/2022	\$36.40	\$9.10	\$16.70	\$0.00	\$62.20
	12/01/2022	\$37.25	\$9.10	\$16.70	\$0.00	\$63.05
	06/01/2023	\$38.15	\$9.10	\$16.70	\$0.00	\$63.95
	12/01/2023	\$39.05	\$9.10	\$16.70	\$0.00	\$64.85
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
	06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
	12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
	06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
	12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.41	\$9.10	\$16.64	\$0.00	\$61.15
	06/01/2022	\$36.31	\$9.10	\$16.64	\$0.00	\$62.05
	12/01/2022	\$37.16	\$9.10	\$16.64	\$0.00	\$62.90
	06/01/2023	\$38.06	\$9.10	\$16.64	\$0.00	\$63.80
	12/01/2023	\$38.96	\$9.10	\$16.64	\$0.00	\$64.70
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.41	\$9.10	\$16.64	\$0.00	\$61.15
	06/01/2022	\$36.31	\$9.10	\$16.64	\$0.00	\$62.05
	12/01/2022	\$37.16	\$9.10	\$16.64	\$0.00	\$62.90
	06/01/2023	\$38.06	\$9.10	\$16.64	\$0.00	\$63.80
	12/01/2023	\$38.96	\$9.10	\$16.64	\$0.00	\$64.70
This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
	06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
	12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
	06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
	12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	02/01/2022	\$43.69	\$11.39	\$20.37	\$0.00	\$75.45

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.85	\$11.39	\$20.37	\$0.00	\$53.61
2	60	\$26.21	\$11.39	\$20.37	\$0.00	\$57.97
3	70	\$30.58	\$11.39	\$20.37	\$0.00	\$62.34
4	80	\$34.95	\$11.39	\$20.37	\$0.00	\$66.71
5	90	\$39.32	\$11.39	\$20.37	\$0.00	\$71.08

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS,TILELAYERS & TERRAZZO MECH BRICKLAYERS LOCAL 3 - MARBLE & TILE	02/01/2022	\$57.17	\$11.39	\$22.31	\$0.00	\$90.87
---	------------	---------	---------	---------	--------	---------

Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.59	\$11.39	\$22.31	\$0.00	\$62.29
2	60	\$34.30	\$11.39	\$22.31	\$0.00	\$68.00
3	70	\$40.02	\$11.39	\$22.31	\$0.00	\$73.72
4	80	\$45.74	\$11.39	\$22.31	\$0.00	\$79.44
5	90	\$51.45	\$11.39	\$22.31	\$0.00	\$85.15

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 4	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
---	------------	---------	---------	---------	--------	---------

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE OPERATING ENGINEERS LOCAL 4	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
--	------------	---------	---------	---------	--------	---------

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 2) MILLWRIGHTS LOCAL 1121 - Zone 2	01/03/2022	\$40.67	\$8.58	\$21.57	\$0.00	\$70.82
	01/02/2023	\$41.92	\$8.58	\$21.57	\$0.00	\$72.07

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - MILLWRIGHT - Local 1121 Zone 2

Effective Date - 01/03/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$22.37	\$8.58	\$5.72	\$0.00	\$36.67
2	65	\$26.44	\$8.58	\$17.93	\$0.00	\$52.95
3	75	\$30.50	\$8.58	\$18.98	\$0.00	\$58.06
4	85	\$34.57	\$8.58	\$20.01	\$0.00	\$63.16

Effective Date - 01/02/2023

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$23.06	\$8.58	\$5.72	\$0.00	\$37.36
2	65	\$27.25	\$8.58	\$17.93	\$0.00	\$53.76
3	75	\$31.44	\$8.58	\$18.98	\$0.00	\$59.00
4	85	\$35.63	\$8.58	\$20.01	\$0.00	\$64.22

Notes: Step 1&2 Appr. indentured after 1/6/2020 receive no pension,
but do receive annuity. (Step 1 \$5.72, Step 2 \$6.66)
Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:4

MORTAR MIXER <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
	06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
	12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
	06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
	12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$23.48	\$14.00	\$16.05	\$0.00	\$53.53
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$28.44	\$14.00	\$16.05	\$0.00	\$58.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS) <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2022	\$53.66	\$8.65	\$23.05	\$0.00	\$85.36
	07/01/2022	\$54.86	\$8.65	\$23.05	\$0.00	\$86.56
	01/01/2023	\$56.06	\$8.65	\$23.05	\$0.00	\$87.76
	07/01/2023	\$57.26	\$8.65	\$23.05	\$0.00	\$88.96
	01/01/2024	\$58.46	\$8.65	\$23.05	\$0.00	\$90.16
	07/01/2024	\$59.66	\$8.65	\$23.05	\$0.00	\$91.36
	01/01/2025	\$60.86	\$8.65	\$23.05	\$0.00	\$92.56

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.83	\$8.65	\$0.00	\$0.00	\$35.48
2	55	\$29.51	\$8.65	\$6.27	\$0.00	\$44.43
3	60	\$32.20	\$8.65	\$6.84	\$0.00	\$47.69
4	65	\$34.88	\$8.65	\$7.41	\$0.00	\$50.94
5	70	\$37.56	\$8.65	\$19.63	\$0.00	\$65.84
6	75	\$40.25	\$8.65	\$20.20	\$0.00	\$69.10
7	80	\$42.93	\$8.65	\$20.77	\$0.00	\$72.35
8	90	\$48.29	\$8.65	\$21.91	\$0.00	\$78.85

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.43	\$8.65	\$0.00	\$0.00	\$36.08
2	55	\$30.17	\$8.65	\$6.27	\$0.00	\$45.09
3	60	\$32.92	\$8.65	\$6.84	\$0.00	\$48.41
4	65	\$35.66	\$8.65	\$7.41	\$0.00	\$51.72
5	70	\$38.40	\$8.65	\$19.63	\$0.00	\$66.68
6	75	\$41.15	\$8.65	\$20.20	\$0.00	\$70.00
7	80	\$43.89	\$8.65	\$20.77	\$0.00	\$73.31
8	90	\$49.37	\$8.65	\$21.91	\$0.00	\$79.93

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2022	\$44.56	\$8.65	\$23.05	\$0.00	\$76.26
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$45.76	\$8.65	\$23.05	\$0.00	\$77.46
	01/01/2023	\$46.96	\$8.65	\$23.05	\$0.00	\$78.66
	07/01/2023	\$48.16	\$8.65	\$23.05	\$0.00	\$79.86
	01/01/2024	\$49.36	\$8.65	\$23.05	\$0.00	\$81.06
	07/01/2024	\$50.56	\$8.65	\$23.05	\$0.00	\$82.26
	01/01/2025	\$51.76	\$8.65	\$23.05	\$0.00	\$83.46

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.28	\$8.65	\$0.00	\$0.00	\$30.93
2	55	\$24.51	\$8.65	\$6.27	\$0.00	\$39.43
3	60	\$26.74	\$8.65	\$6.84	\$0.00	\$42.23
4	65	\$28.96	\$8.65	\$7.41	\$0.00	\$45.02
5	70	\$31.19	\$8.65	\$19.63	\$0.00	\$59.47
6	75	\$33.42	\$8.65	\$20.20	\$0.00	\$62.27
7	80	\$35.65	\$8.65	\$20.77	\$0.00	\$65.07
8	90	\$40.10	\$8.65	\$21.91	\$0.00	\$70.66

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.88	\$8.65	\$0.00	\$0.00	\$31.53
2	55	\$25.17	\$8.65	\$6.27	\$0.00	\$40.09
3	60	\$27.46	\$8.65	\$6.84	\$0.00	\$42.95
4	65	\$29.74	\$8.65	\$7.41	\$0.00	\$45.80
5	70	\$32.03	\$8.65	\$19.63	\$0.00	\$60.31
6	75	\$34.32	\$8.65	\$20.20	\$0.00	\$63.17
7	80	\$36.61	\$8.65	\$20.77	\$0.00	\$66.03
8	90	\$41.18	\$8.65	\$21.91	\$0.00	\$71.74

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT) PAINTERS LOCAL 35 - ZONE 2	01/01/2022	\$42.62	\$8.65	\$23.05	\$0.00	\$74.32
	07/01/2022	\$43.82	\$8.65	\$23.05	\$0.00	\$75.52
	01/01/2023	\$45.02	\$8.65	\$23.05	\$0.00	\$76.72
	07/01/2023	\$46.22	\$8.65	\$23.05	\$0.00	\$77.92
	01/01/2024	\$47.42	\$8.65	\$23.05	\$0.00	\$79.12
	07/01/2024	\$48.62	\$8.65	\$23.05	\$0.00	\$80.32
	01/01/2025	\$49.82	\$8.65	\$23.05	\$0.00	\$81.52

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.31	\$8.65	\$0.00	\$0.00	\$29.96
2	55	\$23.44	\$8.65	\$6.27	\$0.00	\$38.36
3	60	\$25.57	\$8.65	\$6.84	\$0.00	\$41.06
4	65	\$27.70	\$8.65	\$7.41	\$0.00	\$43.76
5	70	\$29.83	\$8.65	\$19.63	\$0.00	\$58.11
6	75	\$31.97	\$8.65	\$20.20	\$0.00	\$60.82
7	80	\$34.10	\$8.65	\$20.77	\$0.00	\$63.52
8	90	\$38.36	\$8.65	\$21.91	\$0.00	\$68.92

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.91	\$8.65	\$0.00	\$0.00	\$30.56
2	55	\$24.10	\$8.65	\$6.27	\$0.00	\$39.02
3	60	\$26.29	\$8.65	\$6.84	\$0.00	\$41.78
4	65	\$28.48	\$8.65	\$7.41	\$0.00	\$44.54
5	70	\$30.67	\$8.65	\$19.63	\$0.00	\$58.95
6	75	\$32.87	\$8.65	\$20.20	\$0.00	\$61.72
7	80	\$35.06	\$8.65	\$20.77	\$0.00	\$64.48
8	90	\$39.44	\$8.65	\$21.91	\$0.00	\$70.00

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, NEW) *	01/01/2022	\$43.16	\$8.65	\$23.05	\$0.00	\$74.86
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	07/01/2022	\$44.36	\$8.65	\$23.05	\$0.00	\$76.06
	01/01/2023	\$45.56	\$8.65	\$23.05	\$0.00	\$77.26
	07/01/2023	\$46.76	\$8.65	\$23.05	\$0.00	\$78.46
	01/01/2024	\$47.96	\$8.65	\$23.05	\$0.00	\$79.66
	07/01/2024	\$49.16	\$8.65	\$23.05	\$0.00	\$80.86
	01/01/2025	\$50.36	\$8.65	\$23.05	\$0.00	\$82.06

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.58	\$8.65	\$0.00	\$0.00	\$30.23
2	55	\$23.74	\$8.65	\$6.27	\$0.00	\$38.66
3	60	\$25.90	\$8.65	\$6.84	\$0.00	\$41.39
4	65	\$28.05	\$8.65	\$7.41	\$0.00	\$44.11
5	70	\$30.21	\$8.65	\$19.63	\$0.00	\$58.49
6	75	\$32.37	\$8.65	\$20.20	\$0.00	\$61.22
7	80	\$34.53	\$8.65	\$20.77	\$0.00	\$63.95
8	90	\$38.84	\$8.65	\$21.91	\$0.00	\$69.40

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.18	\$8.65	\$0.00	\$0.00	\$30.83
2	55	\$24.40	\$8.65	\$6.27	\$0.00	\$39.32
3	60	\$26.62	\$8.65	\$6.84	\$0.00	\$42.11
4	65	\$28.83	\$8.65	\$7.41	\$0.00	\$44.89
5	70	\$31.05	\$8.65	\$19.63	\$0.00	\$59.33
6	75	\$33.27	\$8.65	\$20.20	\$0.00	\$62.12
7	80	\$35.49	\$8.65	\$20.77	\$0.00	\$64.91
8	90	\$39.92	\$8.65	\$21.91	\$0.00	\$70.48

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT) PAINTERS LOCAL 35 - ZONE 2	01/01/2022	\$41.22	\$8.65	\$23.05	\$0.00	\$72.92
	07/01/2022	\$42.42	\$8.65	\$23.05	\$0.00	\$74.12
	01/01/2023	\$43.62	\$8.65	\$23.05	\$0.00	\$75.32
	07/01/2023	\$44.82	\$8.65	\$23.05	\$0.00	\$76.52
	01/01/2024	\$46.02	\$8.65	\$23.05	\$0.00	\$77.72
	07/01/2024	\$47.22	\$8.65	\$23.05	\$0.00	\$78.92
	01/01/2025	\$48.42	\$8.65	\$23.05	\$0.00	\$80.12

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.61	\$8.65	\$0.00	\$0.00	\$29.26
2	55	\$22.67	\$8.65	\$6.27	\$0.00	\$37.59
3	60	\$24.73	\$8.65	\$6.84	\$0.00	\$40.22
4	65	\$26.79	\$8.65	\$7.41	\$0.00	\$42.85
5	70	\$28.85	\$8.65	\$19.63	\$0.00	\$57.13
6	75	\$30.92	\$8.65	\$20.20	\$0.00	\$59.77
7	80	\$32.98	\$8.65	\$20.77	\$0.00	\$62.40
8	90	\$37.10	\$8.65	\$21.91	\$0.00	\$67.66

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.21	\$8.65	\$0.00	\$0.00	\$29.86
2	55	\$23.33	\$8.65	\$6.27	\$0.00	\$38.25
3	60	\$25.45	\$8.65	\$6.84	\$0.00	\$40.94
4	65	\$27.57	\$8.65	\$7.41	\$0.00	\$43.63
5	70	\$29.69	\$8.65	\$19.63	\$0.00	\$57.97
6	75	\$31.82	\$8.65	\$20.20	\$0.00	\$60.67
7	80	\$33.94	\$8.65	\$20.77	\$0.00	\$63.36
8	90	\$38.18	\$8.65	\$21.91	\$0.00	\$68.74

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/01/2021	\$35.41	\$9.10	\$16.64	\$0.00	\$61.15
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2021	\$35.78	\$13.41	\$16.01	\$0.00	\$65.20
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 (ZONE 2)						
PILE DRIVER LOCAL 56 (ZONE 2)	08/01/2020	\$46.11	\$9.40	\$23.12	\$0.00	\$78.63
For apprentice rates see "Apprentice- PILE DRIVER"						
PILE DRIVER PILE DRIVER LOCAL 56 (ZONE 2)	08/01/2020	\$46.11	\$9.40	\$23.12	\$0.00	\$78.63

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - PILE DRIVER - Local 56 Zone 2

Effective Date - 08/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Notes: Apprentice wages shall be no less than the following Steps;

(Same as set in Zone 1)

1\$57.06/2\$61.96/3\$66.87/4\$69.32/5\$71.78/6\$71.78/7\$76.68/8\$76.68

Apprentice to Journeyworker Ratio:1:5

PIPELAYER LABORERS - ZONE 2	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
	06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
	12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
	06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
	12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95

For apprentice rates see "Apprentice- LABORER"

PIPELAYER (HEAVY & HIGHWAY) LABORERS - ZONE 2 (HEAVY & HIGHWAY)	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
--	------------	---------	--------	---------	--------	---------

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"

PLUMBER & PIPEFITTER PLUMBERS LOCAL 4	09/01/2021	\$48.50	\$9.80	\$16.12	\$0.00	\$74.42
	03/01/2022	\$49.50	\$9.80	\$16.12	\$0.00	\$75.42

Apprentice - PLUMBER/PIPEFITTER - Local 4

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.40	\$9.80	\$0.00	\$0.00	\$29.20
2	50	\$24.25	\$9.80	\$0.00	\$0.00	\$34.05
3	60	\$29.10	\$9.80	\$0.00	\$0.00	\$38.90
4	70	\$33.95	\$9.80	\$6.41	\$0.00	\$50.16
5	80	\$38.80	\$9.80	\$6.41	\$0.00	\$55.01

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.80	\$9.80	\$0.00	\$0.00	\$29.60
2	50	\$24.75	\$9.80	\$0.00	\$0.00	\$34.55
3	60	\$29.70	\$9.80	\$0.00	\$0.00	\$39.50
4	70	\$34.65	\$9.80	\$6.41	\$0.00	\$50.86
5	80	\$39.60	\$9.80	\$6.41	\$0.00	\$55.81

Notes:

Steps - 2000 hrs; Step 4 w/lic 75%, Step 5 w/lic 85%

Step 4 w/lic \$52.59, Step 5 w/lic \$57.44

Apprentice to Journeyworker Ratio:1:3

PNEUMATIC CONTROLS (TEMP.) PLUMBERS LOCAL 4	09/01/2021	\$48.50	\$9.80	\$16.12	\$0.00	\$74.42
	03/01/2022	\$49.50	\$9.80	\$16.12	\$0.00	\$75.42

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
	06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
	12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
	06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
	12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"						
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
POWDERMAN & BLASTER <i>LABORERS - ZONE 2</i>	12/01/2021	\$36.41	\$9.10	\$16.64	\$0.00	\$62.15
	06/01/2022	\$37.31	\$9.10	\$16.64	\$0.00	\$63.05
	12/01/2022	\$38.16	\$9.10	\$16.64	\$0.00	\$63.90
	06/01/2023	\$39.06	\$9.10	\$16.64	\$0.00	\$64.80
	12/01/2023	\$39.96	\$9.10	\$16.64	\$0.00	\$65.70
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	12/01/2021	\$36.41	\$9.10	\$16.64	\$0.00	\$62.15
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$33.69	\$14.00	\$16.05	\$0.00	\$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS 170 - Dauphinais (Bellingham)</i>	01/01/2022	\$25.75	\$9.76	\$4.00	\$0.00	\$39.51
	12/01/2022	\$26.40	\$10.26	\$4.75	\$0.00	\$41.41
	01/01/2023	\$26.40	\$10.26	\$4.75	\$0.00	\$41.41
	12/01/2023	\$27.00	\$10.76	\$5.45	\$0.00	\$43.21
	01/01/2024	\$27.00	\$10.76	\$5.45	\$0.00	\$43.21
	12/01/2024	\$27.60	\$11.26	\$6.15	\$0.00	\$45.01
	01/01/2025	\$27.60	\$11.26	\$6.15	\$0.00	\$45.01
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
	06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
	12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
	06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
	12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roof Waterproofig &Roof Damproofig) <i>ROOFERS LOCAL 33</i>	02/01/2022	\$47.03	\$12.28	\$19.45	\$0.00	\$78.76

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - ROOFER - Local 33

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.52	\$12.28	\$5.21	\$0.00	\$41.01
2	60	\$28.22	\$12.28	\$19.45	\$0.00	\$59.95
3	65	\$30.57	\$12.28	\$19.45	\$0.00	\$62.30
4	75	\$35.27	\$12.28	\$19.45	\$0.00	\$67.00
5	85	\$39.98	\$12.28	\$19.45	\$0.00	\$71.71

Notes: ** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1

Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.

(Hot Pitch Mechanics' receive \$1.00 hr. above ROOFER)

Apprentice to Journeyworker Ratio:**

ROOFER SLATE / TILE / PRECAST CONCRETE ROOFERS LOCAL 33	02/01/2022	\$47.28	\$12.28	\$19.45	\$0.00	\$79.01
--	------------	---------	---------	---------	--------	---------

For apprentice rates see "Apprentice- ROOFER"

SHEETMETAL WORKER SHEETMETAL WORKERS LOCAL 63	01/01/2022	\$39.29	\$10.64	\$17.33	\$2.02	\$69.28
--	------------	---------	---------	---------	--------	---------

Apprentice - SHEET METAL WORKER - Local 63

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	\$17.68	\$4.79	\$4.67	\$0.81	\$27.95
2	50	\$19.65	\$5.32	\$5.19	\$0.90	\$31.06
3	55	\$21.61	\$5.85	\$9.33	\$1.10	\$37.89
4	60	\$23.57	\$6.38	\$9.33	\$1.18	\$40.46
5	65	\$25.54	\$6.92	\$9.33	\$1.25	\$43.04
6	70	\$27.50	\$7.45	\$9.33	\$1.33	\$45.61
7	75	\$29.47	\$7.98	\$9.33	\$1.40	\$48.18
8	80	\$31.43	\$8.51	\$16.29	\$1.69	\$57.92
9	85	\$33.40	\$9.04	\$16.29	\$1.76	\$60.49
10	90	\$35.36	\$9.58	\$16.29	\$1.84	\$63.07

Notes:

Apprentice to Journeyworker Ratio:1:3

SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2021	\$36.24	\$13.41	\$16.01	\$0.00	\$65.66
---	------------	---------	---------	---------	--------	---------

SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	12/01/2021	\$36.53	\$13.41	\$16.01	\$0.00	\$65.95
---	------------	---------	---------	---------	--------	---------

SPRINKLER FITTER SPRINKLER FITTERS LOCAL 550 - (Section A) Zone I	03/01/2021	\$62.45	\$10.00	\$21.25	\$0.00	\$93.70
--	------------	---------	---------	---------	--------	---------

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1

Effective Date - 03/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$21.86	\$10.00	\$11.99	\$0.00	\$43.85
2	40	\$24.98	\$10.00	\$12.70	\$0.00	\$47.68
3	45	\$28.10	\$10.00	\$13.41	\$0.00	\$51.51
4	50	\$31.23	\$10.00	\$14.13	\$0.00	\$55.36
5	55	\$34.35	\$10.00	\$14.84	\$0.00	\$59.19
6	60	\$37.47	\$10.00	\$15.55	\$0.00	\$63.02
7	65	\$40.59	\$10.00	\$16.26	\$0.00	\$66.85
8	70	\$43.72	\$10.00	\$16.98	\$0.00	\$70.70
9	75	\$46.84	\$10.00	\$17.69	\$0.00	\$74.53
10	80	\$49.96	\$10.00	\$18.40	\$0.00	\$78.36

Notes: Apprentice entered prior 9/30/10:

40/45/50/55/60/65/70/75/80/85

Steps are 850 hours

Apprentice to Journeyworker Ratio:1:3

STEAM BOILER OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TERRAZZO FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	02/01/2022	\$56.09	\$11.39	\$22.34	\$0.00	\$89.82

Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$28.05	\$11.39	\$22.34	\$0.00	\$61.78
2	60	\$33.65	\$11.39	\$22.34	\$0.00	\$67.38
3	70	\$39.26	\$11.39	\$22.34	\$0.00	\$72.99
4	80	\$44.87	\$11.39	\$22.34	\$0.00	\$78.60
5	90	\$50.48	\$11.39	\$22.34	\$0.00	\$84.21

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$42.58	\$9.10	\$17.72	\$0.00	\$69.40
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.30	\$9.10	\$17.72	\$0.00	\$68.12
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2021	\$41.18	\$9.10	\$17.72	\$0.00	\$68.00
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$50.83	\$14.00	\$16.05	\$0.00	\$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2021	\$36.82	\$13.41	\$16.01	\$0.00	\$66.24
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2021	\$53.41	\$9.10	\$18.17	\$0.00	\$80.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2021	\$55.41	\$9.10	\$18.17	\$0.00	\$82.68
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2021	\$45.48	\$9.10	\$18.17	\$0.00	\$72.75
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2021	\$47.48	\$9.10	\$18.17	\$0.00	\$74.75
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE B</i>	12/01/2021	\$36.24	\$13.41	\$16.01	\$0.00	\$65.66
VOICE-DATA-VIDEO TECHNICIAN <i>ELECTRICIANS LOCAL 96</i>	09/05/2021	\$32.86	\$11.57	\$15.72	\$0.00	\$60.15
	09/04/2022	\$34.19	\$12.20	\$15.91	\$0.00	\$62.30

Classification		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	--	----------------	-----------	--------	---------	---------------------------	------------

Apprentice - VOICE-DATA-VIDEO TECHNICIAN - Local 96

Effective Date - 09/05/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.43	\$11.57	\$4.10	\$0.00	\$32.10
2	55	\$18.07	\$11.57	\$4.15	\$0.00	\$33.79
3	60	\$19.72	\$11.57	\$15.32	\$0.00	\$46.61
4	65	\$21.36	\$11.57	\$15.37	\$0.00	\$48.30
5	70	\$23.00	\$11.57	\$15.42	\$0.00	\$49.99
6	75	\$24.65	\$11.57	\$15.47	\$0.00	\$51.69
7	80	\$26.29	\$11.57	\$15.52	\$0.00	\$53.38
8	85	\$27.93	\$11.57	\$15.57	\$0.00	\$55.07

Effective Date - 09/04/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.10	\$12.20	\$4.27	\$0.00	\$33.57
2	55	\$18.80	\$12.20	\$4.32	\$0.00	\$35.32
3	60	\$20.51	\$12.20	\$15.50	\$0.00	\$48.21
4	65	\$22.22	\$12.20	\$15.55	\$0.00	\$49.97
5	70	\$23.93	\$12.20	\$15.60	\$0.00	\$51.73
6	75	\$25.64	\$12.20	\$15.65	\$0.00	\$53.49
7	80	\$27.35	\$12.20	\$15.70	\$0.00	\$55.25
8	85	\$29.06	\$12.20	\$15.75	\$0.00	\$57.01

Notes:

Apprentice to Journeyworker Ratio:1:1

WAGON DRILL OPERATOR <i>LABORERS - ZONE 2</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
	06/01/2022	\$36.56	\$9.10	\$16.64	\$0.00	\$62.30
	12/01/2022	\$37.41	\$9.10	\$16.64	\$0.00	\$63.15
	06/01/2023	\$38.31	\$9.10	\$16.64	\$0.00	\$64.05
	12/01/2023	\$39.21	\$9.10	\$16.64	\$0.00	\$64.95
For apprentice rates see "Apprentice- LABORER"						
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) <i>LABORERS - ZONE 2 (HEAVY & HIGHWAY)</i>	12/01/2021	\$35.66	\$9.10	\$16.64	\$0.00	\$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2021	\$51.38	\$14.00	\$16.05	\$0.00	\$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS LOCAL 4</i>	09/01/2021	\$48.50	\$9.80	\$16.12	\$0.00	\$74.42
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
CABLE TECHNICIAN (Power Zone) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/30/2020	\$29.67	\$9.25	\$1.89	\$0.00	\$40.81
For apprentice rates see "Apprentice- LINEMAN"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/30/2020	\$42.03	\$9.25	\$10.27	\$0.00	\$61.55
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/30/2020	\$34.62	\$9.25	\$10.07	\$0.00	\$53.94
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/30/2020	\$27.20	\$9.25	\$1.82	\$0.00	\$38.27
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/30/2020	\$42.03	\$9.25	\$14.35	\$0.00	\$65.63
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/30/2020	\$37.09	\$9.25	\$10.87	\$0.00	\$57.21
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/30/2020	\$27.20	\$9.25	\$1.82	\$0.00	\$38.27
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/30/2020	\$22.25	\$9.25	\$1.82	\$0.00	\$33.32
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/30/2020	\$49.45	\$9.25	\$17.48	\$0.00	\$76.18

Apprentice - LINEMAN (Outside Electrical) - East Local 104

Effective Date - 08/30/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$29.67	\$9.25	\$3.39	\$0.00	\$42.31
2	65	\$32.14	\$9.25	\$3.46	\$0.00	\$44.85
3	70	\$34.62	\$9.25	\$3.54	\$0.00	\$47.41
4	75	\$37.09	\$9.25	\$5.11	\$0.00	\$51.45
5	80	\$39.56	\$9.25	\$5.19	\$0.00	\$54.00
6	85	\$42.03	\$9.25	\$5.26	\$0.00	\$56.54
7	90	\$44.51	\$9.25	\$7.34	\$0.00	\$61.10

Notes:

Apprentice to Journeyworker Ratio:1:2

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/04/2019	\$30.73	\$4.70	\$3.17	\$0.00	\$38.60
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/04/2019	\$28.93	\$4.70	\$3.14	\$0.00	\$36.77
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/04/2019	\$28.93	\$4.70	\$3.14	\$0.00	\$36.77

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	------------------------------	------------

Additional Apprentice Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours.)

Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

** Multiple ratios are listed in the comment field.

*** APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.

**** APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

DOCUMENT 0700
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
HIGHWAY ACCESS PERMIT #3-2021-0176



Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, Secretary & CEO
Jonathan L. Gulliver, Highway Administrator



3-2021-0176

ROAD IMPROVEMENTS/ Associated with Indirect Access

UXBRIDGE

Subject to all of the terms, conditions and restrictions printed or written below, and on the reverse side hereof, permission is hereby granted to the **CAMPANELLI DEVELOPMENT VI, LLC** to enter upon the State Layout in the TOWN of UXBRIDGE on the road known as AUTO# 16, 515 Douglas Street, to proposed of road way improvements to Douglas Street (Route 16) and Route 146 northbound and southbound ramps proposed by Campanelli Development VI LLC to mitigate impacts associated with a 518,000 square foot sortation facility located in the northeast quadrant of the Route 146/Route 16 interchange in Uxbridge in accordance with the M.G.L. 30, Section 61 Finding issued for the development project (EEA Number 16248). The proposed improvements include installation of dual roundabouts along Route 16 at the unsignalized Route 146 northbound and southbound ramp intersections to support the proposed site development. The improvements also include drainage modifications, milling and resurfacing, sign and pavement markings, street lighting, installation of exclusive left turn lane at 515 Douglas Street and construction of side paths on Route 16 to accommodate pedestrian and bicycle users. Work on Route 16 will generally occur between STA 48+98± and STA 73+47±., as indicated on the plan submitted and on file in the District Three Permits Office.

Prior to ANY Work being done within the State Highway Layout contact the follwing 5 days in adavance, the Grantee must contact the *District Permits Compliance Engineer David Blodgett* @ 617-892-3640 and provide the Permit #, the type of work, date the work is to be started, the contractor who will be performing the work, name, address, and telephone number of person to be contacted in case of emergency. Also, the "**Annual Permit Notification Form**" (attached) must also be completed and submitted to David.Blodgett@dot.state.ma.us or in SHAPS online for notification and approval/denial by MassDOT before any work takes place on any state roadway.

Until or unless Executive Orders and conditions related to the COVID-19 crisis change or are otherwise amended:

- **The Grantee should exercise all required COVID-19 guidelines, including providing, and ensuring workers are wearing, Personal Protection Equipment (PPE), while practicing social distancing and other protective measures found in the order. <https://www.mass.gov/info-details/enforcement-of-the-covid-19-safety-guidelines-and-procedures-for-construction-sites>**
- **Only those permits with activities meeting the guidelines of Essential Services will be allowed to commence work. Work schedules must be approved prior to commencing any work. <https://www.mass.gov/info-details/covid-19-essential-services>**

SPECIAL CONDITION:

WORK HOURS:

No equipment, trucks, etc. shall occupy any part of the traveled way except between the hours of **9:00 AM and 3:30 PM from Monday through Friday**. No work shall be allowed on holidays or at any times between

District 3, 403 Belmont Street Worcester, MA 01604

Tel: (508) 929-3800, FAX: (508) 799-9763

www.mass.gov/orgs/highway-division

and including the day before or the day after a long weekend which involves a holiday without the permission of the District Operations Engineer.

All operations shall be conducted so as not to interfere with, interrupt, or endanger the general public or the traffic flow.

At any time during construction operations when a traffic delay of over twelve (12) minutes occurs and the situation is worsening, the Grantee or the Department shall begin to suspend operations. Continuously increasing delays of over twelve (12) minutes shall not be permitted. When it appears that delays are developing, one or more of the parties mentioned above shall drive the queue to determine the actual time of delay. Monitoring of traffic delays will be a continuous process until the job activity is complete and off the traveled way or until the determination is made to suspend operations.

In no case will operations commence prior to the specified hours of this Permit. This includes traffic set-ups that restrict the flow of traffic upstream of and through the construction zone.

GENERAL:

All work done under this contract shall be in conformance with the Massachusetts Department of Transportation "Standard Specifications for Highways and Bridges" dated 2020. All construction shall conform to the October 2017 edition of the Massachusetts Department of Transportation, Highway Division "Construction Standard Details (English Edition)"; the 2015 Overhead Signal Structure and Foundation Standard Drawings; the latest Manual on Uniform Traffic Control Devices with Massachusetts Amendments; the latest edition to the following: the 1996 Construction and Traffic Standard Details (as related to Traffic Standard details only); the 1990 Standard Drawings for Traffic Signs and Supports; the 1968 Standard Drawings for Traffic Signals and Highway Lighting; the latest edition of American Standard for Nursery Stock; the Plans and these Special Provisions.

The equipment necessary to perform the proposed work shall be located off of the roadway as much as possible.

Only equipment to be used in the actual construction work shall be allowed within the State Highway location.

All personnel who are working in the State Highway Layout shall wear safety vests and hardhats.

Free flow of traffic shall be maintained at all times.

No metal drums are allowed within the State Highway Layout.

UNIFORMED POLICE OFFICERS SHALL BE IN ATTENDANCE TO DIRECT TRAFFIC.

All excavated material, including bituminous concrete, cement concrete, stone, gravel, etc., shall be removed from the State Highway Layout. No stockpiling will be allowed within the State Highway Layout.

All required signs and traffic warning devices, **including the use of arrowboard(s)**, shall be furnished by the Grantee. All signs and devices shall be in accordance with the current edition of the F.H.W.A. Manual on Uniform Traffic Control Devices. The number and location of all signs and devices shall be as deemed

necessary by the Engineer for the safe and efficient performance of the work and the safety of the traveling public.

All warning devices shall be subject to removal, replacement and/or repositioning by the Grantee as often as deemed necessary by the Engineer.

Cones or non-reflectorized warning devices shall not be left in operational position on the highway when the daytime operations have closed. If it becomes necessary for the MassDOT Highway Division to remove any warning devices or appurtenances from the project due to negligence by the Grantee, all costs for this work will be charged to the Grantee.

All vehicles excepting passenger cars which are assigned to the permitted project and which operate on the site at speeds of 25 mph or less shall have an official SLOW MOVING VEHICLE emblem displayed.

The shoulder area shall be restored to as good condition as existed prior to the construction work.

All grassed areas where disturbed shall be restored to as good condition as found by loaming and seeding.

Care shall be exercised to protect existing underground structures.

The bounds marked MHB shall not be disturbed or buried.

All street approaches and driveways where disturbed shall be replaced conforming to original alignment, grade and materials.

The Grantee shall exercise this permit subject to all the rules and regulations made from time to time by the said MassDOT Highway Division and nothing in the permit shall be construed as authorizing any installation or maintenance thereof except in strict conformity with all Federal, State and Municipal laws, ordinances and regulations.

The Grantee shall indemnify and save harmless the Commonwealth and its MassDOT Highway Division against all suits, claims or liability of every name and nature arising at any time out of or in consequence of the Acts of the Grantee in the performance of the work covered by this permit and/or failure to comply with the terms and conditions of this permit whether by itself or its employees or subcontractors.

A copy of this permit will be made available at the project site at all times during the progress of work for inspection by Department Personnel. Should the Grantee or contractor not have a copy at the site, the work will be stopped until such permit is made available.

This office will be notified prior to the start of work under the provisions of this permit.

ALL OF SAID WORK SHALL BE DONE AS DIRECTED AND TO THE SATISFACTION OF THE ENGINEER FROM THIS DEPARTMENT.

"FOLLOWING CONDITIONS APPLY TO PERMITS"

Definitions

District 3, 403 Belmont Street Worcester, MA 01604

Tel: (508) 929-3800, FAX: (508) 799-9763

www.mass.gov/orgs/highway-division

Whenever the word "MassDOT" is used herein it shall mean the Massachusetts Department of Transportation of the Commonwealth of Massachusetts. Whenever the word "Director" is used herein it shall mean the District Highway Director or other authorized representative of MassDOT. Whenever the word "Grantee" is used herein it shall mean the person or persons, corporation or municipality to whom this permit is granted, or their legal representatives

Conditions

Conditions Relating Particularly to Permits for the Laying of Pipes, Conduits, etc.

After any pipes, conduits, drains or other underground structures are laid, or any excavation is made in the roadway, the trenches or openings shall be properly backfilled with suitable material, the back-filling shall be thoroughly tamped, and the surface of the road over said structures shall be left even with the adjoining ground. If the work is done in cold weather no frozen material shall be used for back-filling.

Wherever the hardened surface of the roadway, gutters, or any part of the surface of the highway is disturbed it shall be replaced in as good condition as before it was disturbed, and if new materials are required they shall correspond with those already in place on the road. Where service pipes are to cross the highway the connections shall be made without disturbing the hardened surface of the roadway, by driving the pipes under the roadway, or the service pipes shall be carried under and across the road in a larger pipe, unless otherwise ordered by the Director.

The Grantee shall maintain the surface of the roadway over said structures as long as MassDOT may deem necessary, until all signs of the trenches shall have been eliminated.

Conditions Relating Particularly to Permits for the Erection of Poles, Wires, and Overhead Structures, and the Cutting and Trimming of Trees

In the erection of pole lines, unless otherwise herein provided, no trees located within the limits of the State Highway shall be cut or trimmed. No guy wires shall be attached to trees without a special permit from MassDOT, and in no event shall they be so attached as to girdle the trees or in any way interfere with their growth. The wires shall be so protected at all time and places that they shall not interfere with or injure the trees either inside or outside the location of the highway.

Where the cutting or trimming of trees is authorized by this permit, only such cutting and trimming shall be done as may be designated by the Director. In the construction or reconstruction of pole lines no guy wires shall be erected nearer to the surface of the ground than six feet; provided, however, that the owners of such lines may maintain such guy wires at a lower elevation than six feet from the ground until such time as MassDOT shall notify them to remove said wires or to the elevation first stated.

In order to protect the trees through which any wires may pass, said wires shall be insulated and such other tree guards used as may be directed by the Director. Where high tension wires are erected under this permit, they shall be so located that, under conditions of maximum severity as regards a coating of ice or snow, there shall be a space of at least eight feet between such high tension wires and other wires.

The Grantee shall, within sixty days from the date of completion of the work, file in the office of MassDOT a plan showing the location of each pole erected in accordance with the permit, said plan to be of such size and in such form as MassDOT may direct.

General and Additional Conditions

During the progress of the work all structures underground and above ground shall be properly protected from damage or injury; such barriers shall be erected and maintained as may be necessary for the protection of the traveling public; the same shall be properly lighted at night; and the Grantee shall be responsible for the damages to persons or property due to or resulting from any work done under this permit. Except as herein authorized, no excavation shall be made or obstacle placed within the limits of the State highways in such a manner as to interfere unnecessarily with the travel over said road. If any grading of sidewalk work done under this permit interferes with the drainage of the State highway in any way, such catch basins and outlets shall be constructed as may be necessary, in the opinion of the Director, to take proper care of such drainage.

Wherever the hardened surface of the roadway is disturbed and the Director may consider it necessary or advisable to do so, said surface will be restored by the employees of MassDOT, at such time as MassDOT may direct, and the expense thereof shall be borne by the Grantee, who shall purchase and deliver on the road the materials necessary for said work if and when directed by the Director. All payments to the supplier and Page 2 of 3 District 3, 403 Belmont Street Worcester, MA 01604

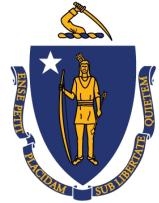
Tel: (508) 929-3800, FAX: (508) 799-9763 www.mass.gov/orgs/highway-division laborers, inspectors, etc., employed by MassDOT for or on account of the work herein contemplated shall be made by said Grantee forthwith on receipt of written orders, pay rolls, or vouchers approved by MassDOT.

IF THE GRANTEE DOES ANY WORK CONTRARY TO THE ORDERS OF THE DIRECTOR, AND, AFTER DUE NOTICE, FAILS TO CORRECT SUCH WORK OR TO REMOVE STRUCTURES OR MATERIALS ORDERED TO BE REMOVED, OR FAILS TO COMPLETE WITHIN THE SPECIFIED TIME THE WORK AUTHORIZED BY THIS PERMIT, MASSDOT MAY, WITH OR WITHOUT NOTICE, CORRECT OR COMPLETE SUCH WORK IN WHOLE OR IN PART, OR REMOVE SUCH STRUCTURES OR MATERIALS, AND THE GRANTEE SHALL REIMBURSE

MASSDOT FOR ANY EXPENSE INCURRED IN CORRECTING AND/OR COMPLETING THE WORK OR REMOVING THE STRUCTURES OR MATERIALS.

ALL OF THE WORK HEREIN CONTEMPLATED SHALL BE DONE UNDER THE SUPERVISION AND TO THE SATISFACTION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, AND THE ENTIRE EXPENSE THEREOF SHALL BE BORNE BY THE GRANTEE.

On the completion of the work herein contemplated all rubbish and debris shall be removed and the roadway and roadsides shall be left neat and presentable and satisfactory to the Director. MassDOT hereby reserves the right to order the change of location or the removal of any structure or' structures authorized by this permit at any time, said change or removal to be made by and at the expense of the Grantee or its I their successors or assigns. This permit may be modified or revoked at any time by MassDOT without rendering said MassDOT or the Commonwealth of Massachusetts liable in any way.



Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Jamey Tesler, Secretary of Transportation & CEO
Jonathan L. Gulliver, Highway Administrator



3-2021-0176

Approved Signature

A handwritten signature in black ink that reads "Barry Lorion".

Barry Lorion by J.G.
District Highway Director

Date of Issue: September 23, 2021

Permit Expiration: Friday, September 23, 2022

**DOCUMENT 0800
TOWN OF UXBRIDGE, MA
CONSERVATION COMMISSION
ORDER OF CONDITIONS**

REC'D UMS TOWN CLERK
2022 FEB 10 AM 9:30



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1134

MassDEP File #

eDEP Transaction #

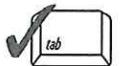
Uxbridge

City/Town

A. General Information

Please note:
this form has
been modified
with added
space to
accommodate
the Registry
of Deeds
Requirements

Important:
When filling
out forms on
the
computer,
use only the
tab key to
move your
cursor - do
not use the
return key.



Uxbridge Conservation Commission

1. From: Conservation Commission

2. This issuance is for (check one): Order of Conditions Amended Order of Conditions

3. To: Applicant:

Robert	Demarco
a. First Name	b. Last Name
Campanelli Development VI, LLC	
c. Organization	
1 Campanelli Drive	
d. Mailing Address	
Braintree	MA
e. City/Town	02185
	g. Zip Code

4. Property Owner (if different from applicant):

a. First Name	b. Last Name
Commonwealth of Massachusetts c/o MASS DOT	
c. Organization	
333 South Street	
d. Mailing Address	
Shrewsbury	MA
e. City/Town	01545
	g. Zip Code

5. Project Location:

Douglas St	Uxbridge
a. Street Address	
28, 23	
c. Assessors Map/Plat Number	
Latitude and Longitude, if known:	42N d 4 m 1.2 s
	d. Latitude
	71W d 39 m 58.17 s
	e. Longitude



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

312-1134

MassDEP File #

eDEP Transaction #
Uxbridge

City/Town

A. General Information (cont.)

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):
Worcester

a. County	b. Certificate Number (if registered land)	
3259 2638 7637 2616 2630	455 588 1 141 588	
c. Book	d. Page	
11/22/2021	2/7/2022	2/10/2022
a. Date Notice of Intent Filed	b. Date Public Hearing Closed	c. Date of Issuance
7. Dates:		
8. Final Approved Plans and Other Documents (attach additional plan or document references as needed): Douglas Street (Rt 16)/Route 146 Plan to Accompany NOI		
a. Plan Title		
Kelly Engineering Group		
b. Prepared By	c. Signed and Stamped by	
9/15/2021		
d. Final Revision Date	e. Scale	
f. Additional Plan or Document Title		
g. Date		

f. Additional Plan or Document Title

g. Date

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act:

Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:

a. <input checked="" type="checkbox"/> Public Water Supply	b. <input type="checkbox"/> Land Containing Shellfish	c. <input checked="" type="checkbox"/> Prevention of Pollution
d. <input checked="" type="checkbox"/> Private Water Supply	e. <input type="checkbox"/> Fisheries	f. <input checked="" type="checkbox"/> Protection of Wildlife Habitat
g. <input checked="" type="checkbox"/> Groundwater Supply	h. <input checked="" type="checkbox"/> Storm Damage Prevention	i. <input checked="" type="checkbox"/> Flood Control

2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

Approved subject to:

a. the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1134
MassDEP File #

eDEP Transaction #
Uxbridge

City/Town

B. Findings (cont.)

Denied because:

b. the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**

c. the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**

3. Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a) 0.00
a. linear feet

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

Resource Area	Proposed Alteration 32.00	Permitted Alteration	Proposed Replacement 32.00	Permitted Replacement
4. <input checked="" type="checkbox"/> Bank	a. linear feet	b. linear feet	c. linear feet	d. linear feet
5. <input checked="" type="checkbox"/> Bordering Vegetated Wetland	1,182.00	a. square feet	b. square feet	c. square feet
6. <input checked="" type="checkbox"/> Land Under Waterbodies and Waterways	87.00 3.00	a. square feet e. c/y dredged	b. square feet f. c/y dredged	c. square feet
7. <input type="checkbox"/> Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	a. square feet	b. square feet		
Cubic Feet Flood Storage	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet
9. <input type="checkbox"/> Riverfront Area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	g. square feet	h. square feet	i. square feet	j. square feet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1134
MassDEP File #
eDEP Transaction #
Uxbridge
City/Town

B. Findings (cont.)

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
10. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below			
11. <input type="checkbox"/> Land Under the Ocean	a. square feet	b. square feet	c. c/y dredged	d. c/y dredged
12. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below			
13. <input type="checkbox"/> Coastal Beaches	a. square feet	b. square feet	c. cu yd	d. cu yd
14. <input type="checkbox"/> Coastal Dunes	a. square feet	b. square feet	c. cu yd	d. cu yd
15. <input type="checkbox"/> Coastal Banks	a. linear feet	b. linear feet		
16. <input type="checkbox"/> Rocky Intertidal Shores	a. square feet	b. square feet		
17. <input type="checkbox"/> Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet
18. <input type="checkbox"/> Land Under Salt Ponds	a. square feet	b. square feet		
19. <input type="checkbox"/> Land Containing Shellfish	c. c/y dredged	d. c/y dredged	a. square feet	b. square feet
20. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above			
21. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	a. c/y dredged	b. c/y dredged	a. square feet	b. square feet
22. <input type="checkbox"/> Riverfront Area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	g. square feet	h. square feet	i. square feet	j. square feet



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1134
MassDEP File #

eDEP Transaction #
Uxbridge
City/Town

B. Findings (cont.)

* #22. If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.5.c (BVW) or B.17.c (Salt Marsh) above, please enter the additional amount here.

22. <input type="checkbox"/> Restoration/Enhancement *:	0.00	0.00
	a. square feet of BVW	b. square feet of salt marsh
23. <input type="checkbox"/> Stream Crossing(s):	0	0
	a. number of new stream crossings	b. number of replacement stream crossings

C. General Conditions Under Massachusetts Wetlands Protection Act

The following conditions are only applicable to Approved projects.

- Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
- The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
- This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
- The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
 - The work is a maintenance dredging project as provided for in the Act; or
 - The time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
 - If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
- This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
- If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on 2/10/2025 unless extended in writing by the Department.
- Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands**
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1134

MassDEP File #

eDEP Transaction #
Uxbridge

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act

8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.
9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.

10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]

"File Number 312-1134"

11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

312-1134

MassDEP File #

eDEP Transaction #

Uxbridge

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.
19. The work associated with this Order (the "Project")
 - (1) is subject to the Massachusetts Stormwater Standards
 - (2) is NOT subject to the Massachusetts Stormwater Standards

If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

- a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.
- b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:
 - i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
 - ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
 - iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands**
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1134
MassDEP File #

eDEP Transaction #
Uxbridge
City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;
- v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following:

- i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and
- ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

312-1134

MassDEP File #

eDEP Transaction #

Uxbridge

City/Town

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- g) The responsible party shall:
 - 1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
 - 2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
 - 3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

See attached pages incorporated herein and made part of this Order

- 20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

312-1134

MassDEP File #

eDEP Transaction #

Uxbridge

City/Town

D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Is a municipal wetlands bylaw or ordinance applicable? Yes No
2. The Uxbridge Conservation Commission hereby finds (check one that applies):
Conservation Commission
 - a. that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw, specifically:

1. Municipal Ordinance or Bylaw

2. Citation

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

- b. that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

1. Municipal Ordinance or Bylaw

2. Citation

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.
The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

312-1134

MassDEP File #

eDEP Transaction #

City/Town _____

E. Signatures

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

Please indicate the number of members who will sign this form.

This Order must be signed by a majority of the Conservation Commission.

2/10/2022

1. Date of Issuance

4

2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

John E. Zito
R. Holch

Lauren Steele
Paul M. Balutes

by hand delivery on

by certified mail, return receipt requested, on

2/10/2022

Date _____

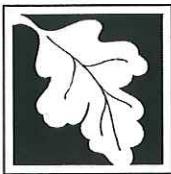
Date _____

F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1134
MassDEP File #

eDEP Transaction #
Uxbridge
City/Town

F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
312-1134
MassDEP File #

eDEP Transaction #
Uxbridge

City/Town

G. Recording Information

This Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Uxbridge Conservation Commission

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Uxbridge Conservation Commission

Conservation Commission

Please be advised that the Order of Conditions for the Project at:

Douglas St

312-1134

Project Location

MassDEP File Number

Has been recorded at the Registry of Deeds of:

Worcester

County

Book

Page

for:

Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1134 Douglas St

Project Description: PROJECT CONSISTS OF ROADWAY IMPROVEMENTS AT THE ROUTE 146 AND ROUTE 16 (DOUGLAS STREET) INTERCHANGE. IMPROVEMENTS INCLUDE NEW ROUNDABOUTS FOR SAFETY AND IMPROVEMENTS FOR PEDESTRIAN ACCESS.

Approved Plans:

Plan #	Title	Engineer	Dated	Revised	Signed/Stamped by
1059	Roadway & Intersection Improvements Worcester-Providence Turnpike & Douglast Street	MDM Transportation Consultants, Inc.	3/8/2021	8/25/2021	
2018-134	Douglas Street (Rt 16)/Route 146 Plan to Accompany NOI	Kelly Engineering Group	9/15/2021		

The following conditions indicated with a checkmark shall apply to this project:

- 21. The Uxbridge Conservation Commission and its duly authorized agent shall have the right to enter the property subject to this Order for the purposes of inspection and enforcement for the duration that this Order is in effect. Denying the Conservation Commission or its agent access to the property shall be considered grounds for revoking the Order of Conditions.
- 22. This Order of Conditions shall not be considered valid until the Uxbridge Conservation Commission is in receipt of a Certificate of Understanding that has been signed and completed by the owner/applicant. The Certificate of Understanding shall not be considered complete unless each criterion has been initialed by the applicant to demonstrate an understanding of this Order of Conditions.
- 23. The Uxbridge Conservation Commission shall retain the right to require the submittal of additional information or additional construction measures deemed necessary to ensure the protection of wetland resource areas located in close proximity to the project. Construction measures may include, without limitation, additional erosion control measures.
- 24. Any proposed changes to the approved plans must be reviewed and approved by the Uxbridge Conservation Commission. Changes in the originally approved work may require the filing of a new Notice of Intent as dictated by the policy of the Massachusetts Department of Environmental Protection.
- 25. Before work may begin, the name(s) and telephone number(s) of the field engineer responsible for overseeing the installation and maintenance of erosion controls shall be provided to the Uxbridge Conservation Commission.
- 26. All erosion controls shall include a silt fence and 10 inch or larger wattles. They must be inspected and approved by the Uxbridge Conservation Commission prior to the start of work. Please call the Conservation office to schedule this site visit, the fee is \$50.00
- 27. Prior to work the site following installed sedimentation there will be an on-site pre- construction meeting. The site supervisor or applicant will meet with the Conservation Agent and will provide by email /or phone for both commencement and finishing of work at the site. Notice shall be given to the Uxbridge Conservation Commission no less than two (2) business days prior to the commencement of construction activities. Failure to notify the Conservation Commission or its agent may result in enforcement in the form of a Stop Work Order until proper communication is established between the Conservation Commission and operator of the project site.
- 28. Prior to any disturbance on the site, the applicant or his/her representative shall submit a schedule to the Conservation Commission and it's Agent for review and approval. The schedule shall include a sequence of events with approximate dates of activities relevant to this Order of Conditions, including, without limitation:

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1134 Douglas St

- a) Placement of sediment and erosion controls;
- b) Site preparation;
- c) Tree cutting;
- d) Construction activities;
- e) Stabilization of the site;
- f) Key dates or milestones for activities; and
- g) Site management information including names, addresses, phone number and e-mail addresses of site contractors.

29. Before any work on-site begins, all other applicable federal, state /or local permits /or approvals must be obtained. Said permits and approvals may include but are not limited to: Approved Definitive Subdivision plan, Zoning Permit, Building Permit, Board of Health approval for septic systems, etc. The Conservation Commission may contact the appropriate board or department to verify that such permits have been issued.

30. Unless otherwise stated by the Conservation Commission or its Agent, all project sites with an authorized limit of disturbance of two (2) acres or greater shall require a dumpster on the property located outside of resource areas and their jurisdictional limits. All trash and construction debris from the site will be deposited in the dumpster. This dumpster shall be emptied at a minimum of at least once every two (2) weeks or more often if necessary. Construction waste shall not be buried on the property under any circumstances. All contractors and operators of the site are required to be informed of the appropriate procedure for waste disposal.

31. A copy of the approved plans and Order of Conditions shall be kept on-site and available for review at all times. All contractors are expected to adhere to the approved plan and these Conditions

32. The boundaries of all wetland resource areas shall be clearly demarcated with flagging. Wetland flagging shall remain in place until all work is completed and a Certificate of Compliance is issued by the Uxbridge Conservation

33. No unsuitable material of any kind (i.e. stumps, roots, trash, debris, etc.) may be buried, placed or dispersed within a wetland, watercourse or within the jurisdictional limits afforded to these resource areas unless otherwise authorized by the Conservation Commission or its Agent. This shall be a condition in perpetuity and shall be noted in the Certificate of Compliance.

34. Erosion control measures to include straw wattles, compost socks and staked silt fence shall be installed along the limit of work as shown on the approved Plan of Record. Hay bales are no longer permissible within jurisdictional resource areas or their buffer zones. Straw wattles and compost socks shall overlap by at least one (1) horizontal foot to prevent breaches from occurring. Earth shall not be backfilled against or allowed to overtop erosion control barriers. The Conservation Commission or its Agent may require the erosion barrier to be replaced if the barrier is in jeopardy of breaching.

35. Erosion control barriers shall be inspected regularly and maintained at all times. If a breach of the erosion control barriers occurs, the Uxbridge Conservation Commission shall be notified, and measures shall be taken to remediate said breach under the guidance of the Commission. Silt and sand accumulating behind said barriers shall be removed regularly. The Conservation Commission also requires that erosion and sedimentation control devices be inspected within twenty-four (24) hours following each reportable storm event over .5" and repaired and replaced as necessary.

36. Erosion control barriers shall remain in place until a Certificate of Compliance is issued for said work or upon written authorization from the Uxbridge Conservation Commission. Upon issuance of a Certificate of Compliance, silt fencing and stakes must be removed unless otherwise requested by the Uxbridge Conservation Commission.

37. The area of construction shall remain in a stable condition at the close of each construction day. Stable conditions include, but are not limited to, proper maintenance of erosion controls and stockpiling of soil or debris.

38. All equipment shall be inspected regularly for leaks. Any leaking hydraulic lines, cylinders, or any other components shall be fixed immediately. Any release on the property which is reported to the Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup (MassDEP, BWSC) shall be subsequently reported to the Conservation Commission within twenty-four (24) hours of said incident. Any documents provided to MassDEP, BWSC pertaining to said release shall be forwarded to the Conservation Commission or its Agent for record.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1134 Douglas St

- 39. Construction materials, vehicles, portable toilets and earth shall be stored outside of the 100-foot buffer zone of wetland resource areas or 200-foot Riverfront Areas, unless otherwise demarcated and authorized on the approved
- 40. Refueling of vehicles shall not take place within wetland resource areas, the 100-foot buffer zone of wetland resource areas and/or 200-foot Riverfront Areas.
- 41. The applicant is required to maintain the project site in a manner that is consistent with its Stormwater Pollution Prevention Plan (SWPPP) when such a plan is required. If a project is found to be in violation of its SWPPP, it is therefore considered to be in violation of this Order of Conditions. Applicants must forward a copy of the respective SWPPP to the Conservation Commission or its Agent and any subsequent reports pertaining to the management of stormwater runoff on the property when these documents are prepared for distribution. No work approved by this Order of Conditions may commence on the property until a SWPPP has been authorized for projects wherein such a plan is required.
- 42. An OMP Report shall be submitted quarterly to the Conservation Commission electronically.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1134 Douglas St

- 43. The Conservation Commission may require that more than the first inch of rainfall to be treated if stormwater is discharged within 50 horizontal feet of a cold-water fishery.
- 44. Unplanned stormwater runoff shall be reported to the Conservation Commission or its Agent. The Conservation Commission may require additional treatment techniques to detain and managed unexpected stormflow.
- 45. Upon completion of the project, all exposed soil areas shall be stabilized and re-vegetated. Areas not permanently stabilized by December 1st, shall be temporarily stabilized by installation of erosion control blankets or other method approved by the Uxbridge Conservation Commission.
- 46. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order.
- 47. Any damage to wetland resource areas shall be the responsibility of any successor in interest or successor in control to remediate.
- 48. Certain conditions are ongoing and do not expire upon completion of the project or the issuance of a Certificate of Compliance. Some of these conditions include as follows:
 - a) Synthetic Herbicides, pesticides, or chemical fertilizers shall not be used within wetland resource areas or 100-foot buffer zone of wetland resource areas.
 - b) Snow shall not be stockpiled within wetland resource areas and buffer zones. Signs reading "NO Snow Stockpiled in This Area" will be added every 20' along the 25' disturb line on the parcel.
 - c) Snow shall only be stored as shown on the approved plan. All snow removed from trailer roof tops will be plan in snow stock areas as shown on approved plan.
 - d) Snow stored within jurisdiction of the Conservation Commission shall be cleaned in the spring of each calendar year of any accumulated sand or debris following the melt off of all snow; this area shall be reseeded as necessary for restoration of vegetated cover disturbed through snow management of the project site. Sand and debris shall be removed to a proper disposal location away from any wetlands or their jurisdictional limits unless otherwise authorized by the Conservation Commission.
 - e) All snow removed from the roof top of trailers shall be placed in only the Stockpile areas shown on the revised plan.
 - f) Wetland resource areas as well as buffer zones shall be kept free of debris, litter or other extraneous material including landscaping refuse.
 - g) Location of erosion control barriers per the approved plan(s) is understood to be the limit of work &/or landscaping unless otherwise authorized by the Conservation Commission. No construction, clearing, or landscaping beyond the erosion control barriers shall occur either during project activities or after project completion, without express permission from the Uxbridge Conservation Commission.
 - h) As described in the Conservation Commission's setback policy, no land disturbance shall be allowed within twenty-five (25) horizontal feet of any freshwater wetland unless otherwise authorized by the Conservation Commission as shown on the approved plans related to the project. Maintenance of existing lawns within this 25-foot area is allowed so long as said maintenance is completed in a manner that is consistent with the standards and definitions of the Wetlands Protection Act and its regulations. This condition shall be maintained in perpetuity after a Certificate of Compliance is issued.
- 49. Any wetland replication shall conform to the guidance set forth by the Massachusetts Department of Environmental Protection in Guidance - BRP/DWM/WetG02-2; Massachusetts Inland Wetland Replication Guidelines.

Findings and Conditions of the Uxbridge Conservation Commission

DEP # 312-1134 Douglas St

- a) The name and contact information of the wetland scientist responsible for replication design, oversight and annual report submittal shall be forwarded in writing to the Uxbridge Conservation Commission office before the commencement of work. Design, oversight and subsequent reports shall be performed and prepared by a Professional Wetland Scientist (PWS), a Certified Professional Soil Scientist (CPSS), a Certified Wildlife Biologist (CWB) or a qualified professional approved by the Conservation Commission or its Agent.
- b) Planting plans and data on vegetation to be used shall be forwarded to the Uxbridge Conservation Commission for approval before the beginning of wetland replication activities. Replication plans and narratives shall include details on grades, vegetation types and density of plantings and wetland soils
- c) The Uxbridge Conservation Commission office shall be notified upon completion of replication area grading and before commencement of topsoil placement and planting. The Uxbridge Conservation Commission may elect to perform a site visit to assess the progress.
- d) Wetland replication shall occur before &/or concurrently with wetland fill so that salvaged material (soil and any vegetation) may be quickly transplanted to the replication area.
- e) Existing wetland topsoil and vegetation (where practicable) shall be salvaged from the wetland area to be filled. Salvaged topsoil shall be used to augment soil amendments in the replication area. Salvaged wetland vegetation shall be immediately transplanted to the replication area.
- f) An annual wetland evaluation report detailing wetland replication progress shall be submitted to the Uxbridge Conservation Commission on or before October 15th of each year until replication is deemed successful by this Commission. The annual evaluation report shall be completed by a qualified wetland scientist and shall include information on aerial extent of cover, percent species survival, individual plant species replacement, hydrology and invasive species presence, if any. A Certificate of Compliance for the project will not be issued for this project until replication is deemed successful by the Uxbridge Conservation Commission. A successful replication area shall be stabilized for at least two (2) growing seasons and in compliance with the standards and definitions in the guidance document provided by MassDEP unless otherwise approved by the Conservation Commission. An annual evaluation report shall not be required if the work has not commenced before October 15th of the subject year.
- g) A copy of the wetland replication plans and narrative shall be provided to the wetland scientist to oversee replication and to the contractor(s) to carry out the work. A copy of the wetland replication plans and narrative shall be made available at all times for review by contractors.
- h) Failure to abide by the conditions herein shall be grounds for the issuance of a Stop Work Order, further enforcement action &/or fines.

50. Upon completion of the project, the applicant must apply for a Certificate of Compliance by submitting a "Request for Certificate of Compliance (WPA Form 8A)" form and an engineer-stamped and signed "As-built plan". A lien against the parcel shall remain in effect until a Certificate of Compliance is issued.

51. Record the enclosed Order of Conditions with the Worcester County Registry of Deeds and forward proof of recording to the Uxbridge Conservation Commission prior to the start of work. The applicant is responsible for maintaining a copy of the approved plan which may be requested by the Uxbridge Conservation Commission for review purposes upon the request for a Certificate of Compliance.

The additional conditions listed below shall apply to this project: